Architectural Program Report

Prepared for:
National Architectural Accrediting Board
August 2007

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Forward:

Since the last accreditation visit in 2001 the School has made significant progress in a series of critical areas. Most notably the school has fully implemented the transition from a Bachelor of Architecture to Master of Architecture as the professional accredited degree. The first Master of Architecture was in 2002 and the last Bachelor of Architecture class was in 2005.

We have fully implemented our new graduate curriculum which includes new seminar and studio courses as well as a required summer internship program and an international study tour which occurs each spring. We have also developed and implemented a series of specific design standards and expectations that ensure students meet required skill sets before graduation. As part of the Masters program we have partnered with many architectural firms in the west to offer our students summer internships for which they receive IDP credit. This has also yielded a significant increase in graduate scholarships. In 2006 we awarded over $26,000 in scholarships funds to our graduate students and our projection for 2007 is to provide $40,000.

At the undergraduate level we have established a policy that requires all second year students to purchase laptop computers (The school was the first undergraduate unit on campus to require this). The building is now completely wireless with access to all printers and plotters through the WEB. We still maintain an open computer lab for general student population. In addition we have implemented required domestic study tours for all third and fourth year students.

The faculty have been very active in research and scholarly publications with over 10 books being published by faculty since 2001 and four more currently under review. Faculty have also been very active in national and international conferences through writing papers, serving on international boards and serving as peer referees for conference proceedings.

In terms of sustainability the school was one of 18 universities participating in the 2004 solar decathlon. We also are offering undergraduate and graduate courses focusing upon issues on environment. The school is currently developing an Institute of Sustainable Design. The Institute is a collaborative effort between architecture, construction management, civil engineering and the WSU Wood Materials Lab. The institute will serve as a forum for the integration of these disciplines offering courses, research and outreach on specific issues of sustainability.

Another significant development in the school has been our integrated education initiative. This is a specific direction for the school where we are capturing our direct linkage between architecture and construction management. Our integrated education is being developed through targeted courses where architecture and construction management students are teamed to work together either in studio or lecture/seminar courses. The second way we are linking the students is through a series of symposiums and charrettes. In the spring of 2006 we conducted three symposiums where over thirty professionals participated in workshops for all students. In the spring of 2007 we conducted a charrette for all third and fourth year students to work together to solve a design and construction project. The APR articulates this initiative in greater detail.

We are very proud of our school and look forward to sharing our accomplishments and vision for the future with the team.

Gregory A. Kessler
Professor and Director
1. Introduction

1.1 Institutional Description and History
1.2 Institutional Mission
1.3 Program History
1.4 Program Mission
1.5 Program Strategic Plan
1.1 INSTITUTIONAL DESCRIPTION AND HISTORY

Washington State University, the state's land-grant university, prepares individuals for productive lives and professional careers, conducts basic and applied research, and provides public service statewide. Founded in Pullman in 1890, WSU became a multi-campus system in 1989 with the establishment of campuses in Spokane, the Tri-Cities and Vancouver. Degree and non-degree courses are available as well through regional Learning Centers around the state and through the Extended Degree Programs.

The university consists of 10 colleges and a graduate school. For more than a century, WSU has offered strong and varied academic programs. The liberal arts and sciences have always occupied an important place in the curriculum, along with business, education, architecture, pharmacy, nursing, and the traditional land-grant programs in agriculture and home economics, engineering and veterinary medicine.

The university offers nearly 150 major fields of study. Bachelor's degrees are available in all major areas, with master's and doctoral degrees available in most. The undergraduate core curriculum, including world civilizations courses and expanded writing requirements, is nationally recognized. WSU's University Honors College is one of the oldest and most well-respected, all-university programs for academically talented students. Money magazine has called the Honors College one of the best in the nation.

Washington's only statewide university, WSU has Cooperative Extension offices in all 39 counties, 11 regional learning centers, seven research and extension facilities in various locations, and 24 Small Business Development Centers statewide. The Intercollegiate Center for Nursing Education has a satellite nursing center in Yakima, and students can take WHETS courses from Wenatchee (via WSU Vancouver). The university runs the Washington Higher Education Telecommunication System (WHETS), which transmits live, interactive instruction to the branch campuses and other sites. WSU offers several bachelor's degrees via a variety of distance learning technologies to place-bound students within Washington and nationwide, including those in social sciences, human development, business administration, and criminal justice.

WSU's instructional faculty of approximately 1,230, including a substantial number of scholars with national and international reputations, is responsible for instruction that opens students' minds to the most recent knowledge and discoveries. The opportunity for students to know and work closely with their instructors is one advantage of a medium-sized, residential campus such as WSU. Personal attention from faculty is also a hallmark of the branch campuses.

The heart of the WSU system is the Pullman campus. WSU has about 23,000 students, including those in Pullman, at the ICNE/College of Nursing, Spokane, Vancouver and Tri Cities. Of these, about 16,000 are undergraduates and 3,200 are graduate students. There are over 70 masters programs and 40 PhD programs. Pullman is one of the largest residential campuses west of the Mississippi with about half of the student body living in residence halls, single and family student apartments, and fraternity and sorority houses. Here, students of diverse social, economic and ethnic backgrounds from throughout the nation and more than 90 foreign countries come together in a community in which education is the principal industry and human development the primary concern.

WSU's main campus is located in an area called the Palouse in southeast Washington, where much of the nation's finest wheat and legumes are produced. Several small but expanding high-tech firms are diversifying Pullman's economy. The 620-acre campus features modern classrooms and laboratories, libraries, museums, student residences, recreational and athletic facilities, a
student union and a community hospital. A recent library addition has doubled WSU's library capacity.

The College of Engineering and Architecture provides accredited undergraduate education throughout the state in engineering, architecture, construction management, computer science, environmental science and bio systems engineering. A significant aspect of the school in the college is the collaboration and integration that is occurring between disciplines. Some of these include the Institute for Sustainability, the Integrated Education program as well as collaborative research endeavors. These initiatives are discussed in detail later in this report. The School of Architecture and Construction Management is the administrative unit within the college providing degrees in architecture and construction management.

1.2 UNIVERSITY VISION AND MISSION STATEMENT:
The WSU strategic plan adopted in 2002 states the following vision and mission statement.

Washington State University offers a premier undergraduate experience, conducts and stimulates world-class research, graduate and professional education, scholarship and arts, and provides an exemplary working and teaming environment that fosters engagement. As a public, land-grant and research institution of distinction, Washington State University enhances the intellectual, creative, and practical abilities of the individuals, institutions, and communities that we serve by fostering teaming, inquiry, and engagement.

CEA MISSION STATEMENT:
The college of Engineering and Architecture has the following mission statement developed in 2002.

provide a comprehensive education to a diverse constituency in engineering and To

for advanced study, and for lifelong learning; to conduct research, integrated architecture that prepares students to contribute effectively to the profession and society, with education, in selected areas of excellence, within traditional disciplines and within interdisciplinary teams, technologically important and relevant to the region and nation: and to serve constituents through technology and design transfer partnerships and extended educational programs.

1.3 PROGRAM HISTORY
Architectural education at Washington State University began in the early 1900s. In 1911, architecture courses were listed in the catalogue of the then-named State College of Washington, leading to a four-year Bachelor of Science degree. The core faculty for architecture was Elmer A. Tiiden, an instructor in the Department of Mechanical and Electrical Engineering.

The four-year program was given departmental status in 1914. Rudolph Weaver was first head of the program, then chair of the department from 1914-1923. Weaver was also campus architect and the designer of Carpenter Hall, the current home of the School. He subsequently left WSU to develop the architecture programs at the University of Idaho and the University of Florida.

The B.S. in Architecture degree was granted until 1920. At that time, the degree designation was changed to a B.A. in Architecture, which was offered until 1922. A three-year certificate in architecture was granted from 1922-1931. In 1928, the department changed its name to Architectural Engineering at the same time changing the degree designation to a four-year B.S. in Architectural Engineering. In 1946, the curriculum was revised and extended to span five years, but it was not until 1966 that the department granted a Bachelor of Architecture degree. At this time, the academic unit was renamed the Department of Architecture. The process for NAAB accreditation soon followed with the first five-year accreditation bestowed in 1972. In
2002 the school changed from a Bachelor of Architecture to a Master of Architecture as the first professional degree. Between 2002 and 2005 the school had both the B Arch and M Arch degrees prior to the transition to the MArch as the sole professional degree in 2006.

In 1984, the College of Engineering was renamed the College of Engineering and Architecture with the Department of Architecture given School status. In 1990, an optional studio was offered for fifth-year students at the Spokane branch campus. Today, one third of the fourth year and M Arch students, and a small number of MS Arch students, study for a year in Spokane at the Interdisciplinary Design Institute.

In 1991, the School of Architecture consolidated in its newly renovated home on the Pullman campus in Carpenter Hall. The name was officially changed to the School of Architecture and Construction Management in 1998. Today, there are approximately 550 students working towards the four-year Bachelor of Science in Architecture and Bachelor of Science in Construction Management degree. The school offers minors in architecture and construction management to allow students to gain important knowledge from related disciplines. In addition there are approximately 40 students enrolled in the Master of Architecture degree and 5–8 working on a Master of Science in Architecture degree at the Spokane campus.

1.4 SCHOOL MISSION STATEMENT:
The following serves as the mission statement for the school adopted in 2002.

   The School of Architecture and Construction Management is dedicated to the education of architects and construction managers who are intellectually aware and who critically understand social, political and global conditions that have an impact on the profession of architecture and construction management. It is the intent of the School to graduate future professionals who are committed to excellence in the built environment through the incorporation of intellectual, analytical and artful aspects of each profession. Within this context, students and faculty seek to investigate issues within diverse contexts in order to creatively advance the built environment.

   See Section 3.2 for a complete description of strategic plans, benchmarks and future initiatives and assessment procedures.

1.5 PROGRAM SELF ASSESSMENT.
Please
2. Progress since Previous Site Visit

2.1 Summary of Responses to Team Findings

2.2 Summary of Responses to Changes in the NAAB Conditions
2.1 Summaries of Responses to Team findings.
The following deficiencies and concerns were identified in the VTR of March 2002. The School yearly responses and corrections are summarized below.

2002 VTR deficiencies and concerns:

9.0 Financial Resources: Condition "not met" from 2002 VTR:

There are various budget concerns and deficiencies in the Spokane IDI program. Resources for faculty development are inadequate. Students need computers and software equivalent to those provided for students in Pullman. Student enrichment through a consistent and vital lecture series is minimal. Resources need to be provided to the Spokane campus library for the purchase of up to date architecture periodicals. A clear policy and vision for utilizing development funds ear marked for the architecture program needs to be articulated.

Also the operational budget for the SOACM is not comparable to the resources provided to departments of similar size in the college. The program is twice the size of the Civil Engineering and receives almost $40,000 less for operation. It is about the same size as the Mechanical engineering Department and receives almost $37,000 less for operation. The program is approximately $25,000 in the red every year."

Summarized response from 2003 report:

9.0 Financial Resources: Since the team visit in March, faculty development funds for the Spokane faculty have been increased by the Spokane Dean to $1,000/year per faculty member. This is now at the same level as resources allotted to Pullman faculty for travel and professional development. In addition, new computers have been purchased in Spokane. The open lab now has thirty computers and the computers in the studio space have been updated. We are in the process of working with the Director of the Design Institute as well as the technical staff at both campuses in order to coordinate our purchases of software. This will allow continuity of software and computer applications between the Pullman and Spokane campus.

In terms of the Pullman operating budget we are continuing to work on this issue. WSU is not unlike other universities across the nation and is experiencing budget shortfalls. What is clear from this condition is that the School must continue to demonstrate to the administration that we are moving forward and that we have plans for the future. Our ability to be creative and demonstrate innovative methods of teaching and scholarly work is what will ensure that the School is positioned in the best way possible to receive available funds.

Summarized response from 2004 report:

9.0 Financial Resources: Over the past year development monies have increased by a factor of two. The School currently has development money to be used for discretionary purposes that is the highest in the last seven years. Both corporate and individual giving for the architecture program is approaching $50,000 for the last year.

In addition, the School has received significant contributions for new scholarships particularly for the graduate program. These include endowments established by two large firms in the state as well as specific yearly scholarships established by two other Washington State firms. Also our Jane Logan Scholarship was increased by $50,000 from the donor. The masonry industry which has been a long time supporter of our program has also established an endowment to support a distinguished lecturer as well as resources for our student masonry competition.
State supported resources continue to be a challenge. State operating budget has decreased over the last two years and we continue to look for creative methods and alternative sources of revenue through our development activities.

Summary response from Third year Focused Evaluation 2005:

9.0 Financial Resources: With new leadership at the Spokane campus there have been important and significant changes. Since the last accreditation visit professional development monies in Spokane for faculty have increased and are now comparable to those at the Pullman campus. In addition, Spokane faculty is allotted travel money to attend faculty meetings, participate in reviews and attend committee meetings at the Pullman campus. For the last two years one of our donors has provided an additional $250.00 per faculty member to supplement professional development money. Faculty have generally utilized this money to cover expenses for attending conferences and professional meetings.

In terms of computers the Spokane campus has recently purchased and upgraded new computers and added new software in both the computer lab and studios. Students have access to all of the Autodesk software as well as graphic software, plotters and printers. This provides Spokane students with all of the technology available in Pullman.

Also, this past fall the Design Institute sponsored a Design/ Research week which focused on the issue of health and the built environment. This three day symposium featured a design charrette, lectures, seminars and discussions on this topic. Individuals from the design and health disciplines were invited to present their work in an interdisciplinary forum. Some of the participants in this event were:

The library at the Spokane campus has a policy of purchasing books or subscribing to journals when requested. Over the past three years no requests from faculty for additions to the collection have been denied. The collection continues to grow and is linked with the library at the main campus as well as regional and national libraries. Students are able to request books from these remote libraries and have them delivered to Spokane usually within 3-5 days.

With the change of leadership in Spokane, budget issues have become transparent between the Director of the School and the Director of the Design Institute. There is continuous and open discussion regarding funds and how best to utilize development monies to benefit the students and faculty.

Pullman Budget: The chart below identifies cash flow in the School over the last three years. As shown, the school has maintained a positive cash flow in each of the three years. Also, monies that are retained as accruals from state supported funds are utilized as carry forwards and are shown as revenues for the following year. At WSU operations and salary monies are utilized as one pool of funds. As such there is not a separate line item for operations which allows units in the college to be such each department head manages the relationship between salaries and operations and as compared with each other.
Over the past three years the school has seen a dramatic increase in donations and development funds as shown in the table above. A portion of this money has been directed towards our graduate program which includes endowments established by two large firms in the state as well as specific yearly scholarships established by two other Washington State firms. The Weller Architecture Excellence fund which is the general donor fund used for discretionary spending to support the school has increased from less that $1,000 in 2001 to $54,000 in 2004.

Summarized Responses from 2006 report:

9.0 Financial Resources: Changes identified in last years report continue to be operational and equity in terms of budget issues between Pullman and Spokane has been remedied. In terms of computers and access to digital media the Spokane campus has invested in new computers for students. This is part of the new facilities on the south side of campus for graduate students in architecture and interior design. The new facilities provide studio, classroom and meeting areas for graduate students.

The Design Institute continued with the second year of the "Fall Design Week." This year the focus of the symposium was on health care and Health care environments. This symposium/conference focused on paper sessions as well as renowned speakers in the area of health care environments.

The library at the Spokane campus has a policy of purchasing books or subscribing to journals when requested. Over the past three years no requests from faculty for additions to the collection have been denied. The collection continues to grow and is linked with the library at the main campus as well as regional and national libraries. Students are able to request books from these remote libraries and have them delivered to Spokane usually within 3 - 5 days.

Pullman Budget:
The chart below identifies cash flow in the School over the last four years. As shown, the school has maintained a positive cash flow in each of the years. Also, monies that are retained as accruals from state supported funds are utilized as carry forwards and are shown as revenues for the following year. At WSU operations and salary monies are utilized as one pool of funds. As such each department head manages the relationship between salaries and operations and as such there is not a separate line item for operations which allows units in the college to be compared with each other.
School of Architecture and Construction Management

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<th>Fiscal Year</th>
<th>Activity Type</th>
<th>State &amp; Other</th>
<th>Development</th>
<th>Sub-totals</th>
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funds as shown in the table above. A portion of this money has been directed towards our graduate program which includes endowments established by two large firms in the state as well as specific yearly scholarships established by four other architecture firms. It is expected that for the fall semester 2006 we will be offering 8 – 10 scholarships supported by NW architectural firms for our graduate students. The Weller Architecture Excellence fund which is the general donor fund used for discretionary spending to support the school has increased from less that $1,000 in 2001 to over $50,000 in 2007.

12.5. Fundamental Design Skills: Condition "not met" from 2002 VTR

"There does not seem to be a strong conception of or consistent commitment to teaching fundamental design principles. The core values that students receive in their first design studios seem to vary widely and depend primarily on the desires and approaches of individual faculty members."

from 2003 report:

Response

12.5. Fundamental Design Skills: This past fall we initiated some specific actions to address this issue. In the first year we have appointed a coordinator who is responsible for establishing the syllabus, content and projects for all sections of architecture 101. The coordinator works closely with the architecture 101 faculty as well as teaching assistants to ensure consistency of material delivered in this course. Another component that we have added is that there is now a one-hour lecture each week for all students enrolled in this course. This allows the coordinator to to all 250 students the material that is being covered and the issues that need to be upon by the students. This process is working well and the level of coordination and present focused consistency is excellent. We will continue the process of coordination for the second semester of architecture 103 this spring.

In the second year we have implemented a similar method by appointing a design level coordinator. (This has been implemented at all years.) The coordinator is responsible for making sure that our identified "areas of knowledge" for second year are being implemented throughout the semester. Throughout the semester the Director meets with the coordinators to
discuss progress and problems that may be occurring. The coordinators also meet with faculty from their respective years to discuss consistency in terms of grading and project types.
Response from 2004 report:

12.5. Fundamental Design Skills: As reported last year we have made substantial changes in the first two years to address fundamental skills. As a further development, all the syllabi for the first two years are coordinated between all sections. In addition there is a common evaluation sheet used by all faculty for design projects as well as coordination between sections through our areas of knowledge matrix that was developed by the school for design studios.

Summarized responses from Third Year Focused Evaluation 2005:

12.5. Fundamental Design Skills: We continue to refine and make progress relative to our studios in the first two years. In the fall semester Professor Mike Owen coordinates all of our first year studios. This has provided a level of consistency in terms of project types as well as content. In the spring semester Professor Taiji Miyasaka coordinates our first year studios. The faculty of the school has identified fundamental skills and content for these students that are carried across all sections (see Areas of Knowledge Matrix).

In the second year studios the design level coordinator is responsible for overseeing and managing consistency in terms of project type and emphasis. Our Areas of Knowledge Matrix identifies six areas of knowledge that provide a foundation for all studios. In the fall semester of the second year the focus is on abstract and critical thinking. In particular students will be asked to interpret and evaluate works of art and or literature and utilize these works as sources of inspiration for architecture. At the same time students are refining skills in terms of drawings and models.

In the spring semester students begin to focus on issues of structure, materials and context. This corresponds with the materials course that is taught in the second year and sets the stage for structures courses that begin in the third year. The expectation is that students at the end of the second year will have developed proficiencies in the six areas identified for second year students.

In terms of assessment, at the end of each semester we have an all school exhibition and review of studio work. The faculty reviews all studio work and fills out an assessment form (enclosed). This form is then used to identify deficiencies in studios that are then discussed with individual faculty.

Summarized Responses from 2006 report:

12.5. Fundamental Design Skills: We continue to refine and make progress relative to our studios in the first two years. With the retirement of Professor Mike Owen Professor Taiji Miyasaka is coordinating all of our first year studios. This will provide enhanced consistency between semesters and will increase the flow of material between each semester. In addition Professor Miyasaka has been provided some release time in the fall semester so that he can have an active engagement in the first year studios taught by our graduate students.

In addition to the changes that were identified for second year in last year’s report all second year students will be required to purchase laptop computers for the second year for fall 2006. As such we have reconfigured some of the content in the studio to incorporate and integrate the computers in the studio. We have added one credit to the second year studios and our intent is to use the computers to support the design objectives for the course. In the fall semester students will be integrating Sketch Up into their studio projects and in the spring we will be integrating a second modeling software.

We continue to implement our semester studio review where all student work in the school is displayed and reviewed by all faculty at the end of each semester.
12.11. Non Western Traditions: Condition "not met" from 2002 VTR

There was very little evidence of this awareness. However, Professor Samizay’s studio course on Afghanistan and Professor Wang’s proposed summer foreign travel China provides potential models for wide adoption in the curriculum. Discussion seems to be absent in history courses (although included in syllabus) and infrequent in design and theory courses.

Summarized Response from 2003 report;

12.11. Non Western Traditions: The School has embarked on addressing this issue in various ways. As mentioned in the team report Professor David Wang and Professor Rafi Samizay teach a course on East- West philosophy of architecture and Islamic Architecture respectively. Professor Wang’s course counts as a Tier Three GER. Over the past year approximately 253 of our students have enrolled in this course. Professor Samizay’s course in Islamic Architecture is also a Tier Three GER for students in other disciplines. Students in architecture may take this course as an architecture emphasis elective.

Other activities in this area include a study tour led by Professor Wang to China. This program will occur during the summer of 2003 trip actually occurred in December of 2003) Also, this spring we will be hosting a scholar from the University.

Finally, we are conducting a search for a new faculty member in architectural history. With the addition of this new faculty in the fall of 2003 we will move to implement a segment of our core history courses to cover non-western traditions. This will be information that all students will receive regardless of whether they are in the four-year program or the graduate program.

Non Western Traditions: In addition to the items identified in last years report we have made the following changes. Architecture 324 has been increased from two credits to three and is also a writing in the major course. The 333 increase in contact hours for this course has allowed for increased material in non western traditions to be introduced. We have hired a new history faculty who understands this need and has made deliberate changes in the syllabus to accommodate the nonwestern traditions.

Professor Wang continues his work in China and will be teaching a course on the architecture of China in the spring of 2005 and will be leading a group of our students to China during the summer of 2005. Professor Samizay has spent the past year on professional leave in Afghanistan working to help rebuild the educational structure of the university as well as working on some master planning of the city of Kabul. We are hopeful that this will eventually lead to our students being able to travel and study in Afghanistan.

This past year two of our faculty published a book on the traditional values of architecture in Islamic culture. This book provides a great resource in non western architecture.

This past year the School co sponsored an exhibition with the Museum of Fine Arts on Afghanistan which attracted faculty, students and administrators throughout the university and community.
Summarized responses from Third Year Focused Evaluation 2005:

12.11. Non Western Traditions

Since our last accreditation visit Architecture 324 History of Architecture Renaissance through 19th century has been increased from two credits to three. This course has also been designated as a writing in the major course of which all students need a total of two prior to graduation. The 33% increase in contact hours for this course has allowed for increased material in non western traditions to be introduced. Also our first history course Architecture 220 now has a segment that covers non western traditions. In addition, topics such as Native American architecture have begun to be introduced into our history courses. These changes are the direct result of the hiring of Professor Phil Gruen who coordinates our history sequence. Professor Gruen understands the need to expose students to this material and has worked to integrate this material into his courses (See enclosed syllabi and writing assignment).

Professor Wang continues his work in China and teaches our philosophy 435 course which is a comparison of eastern and western traditions in architecture. This course is a tier three GER which means that architecture students can take this course for GER credit. Over the past three years 40 – 503 of our fourth year students have enrolled in this course. In addition this past fall semester Professor Wang was on professional leave in China and is nearing completion of his new book that will be used for his course. In addition, planning for off campus programs to China is still in progress. With the addition of new faculty member Taiji Miyasaka we are also exploring opportunities in Japan.

Professor Samizay has spent the past year as well as the current year on leave without pay working in Afghanistan. He is designing and constructing new public as well as civic buildings throughout the country. Once stability is restored to this country we are expecting that this will lead to our students being able to travel and study in Afghanistan.

Other events that reinforce non western traditions are as follows:

- Professors Rahmani and Kazimee published a new book on the traditional values of architecture in Islamic culture. This book provides a great resource in non western architecture.

- This past year the School co sponsored an exhibition with the Museum of Fine Arts on Afghanistan which attracted faculty, students and administrators throughout the university and community.

Summarized Responses from 2006 report:

12.11. Non Western Traditions

In addition to changes noted in last years report Professor David Wang led a study tour to China during the winter break of 2005. This was a two week trip and the students visited both historical and contemporary sites in China. Presently Professor Wang is planning for another trip to China this next fall semester.

Professor Samizay continues his work in Afghanistan and is working on providing internship opportunities for students. Our expectation is that once the environment is safe our students will be participating in activities in Afghanistan on a regular basis.
12.14 Accessibility: Condition "not met" from 2002 VTR

This criteria is not met as it is not explicitly shown at any level in the design work.

Summarized response from 2003 report:
12.14 Accessibility: We continue to work at the integration of these issues into the design studio projects. While issues of accessibility for disabled are covered in our required codes course, we have begun to integrate this material into our studio courses. Accessibility is identified in our newly generated "areas of knowledge" matrix reviewed by visiting team in March) for design studios, and as such will be emphasized with a high level of importance in the future. Several of our faculty work to integrate these issues into their studios by having students' role play as a disabled person. As an example, students in these studios experience issues that directly impact individuals in wheel chairs to understand how buildings lack of accessibility can impact their life.

Summarized response from 2004 report:
14 Accessibility:
12. Building upon last years changes, the issue of accessibility continues to be integrated into the studio as well as required courses. Our comprehensive studio evaluation form identifies accessibility as one of our evaluation criteria. Studio syllabi and design reviews continue to raise student awareness of this issue.

Summarized Responses from Third Year Focused Evaluation 2005:
12.14 Accessibility:
The issue of accessibility continues to be integrated into the studio as well as required courses. Our comprehensive studio evaluation form identifies accessibility as one of our evaluation criteria. Studio syllabi and design reviews continue to raise student awareness of this issue. Also accessibility issues have now been introduced into our Environmental controls courses during the segment on conveying systems.

Summarized Responses from 2006 report:
12.14 Accessibility: The issue of accessibility continues to be integrated into the studio as well as required courses. Our comprehensive studio evaluation form identifies accessibility as one of our evaluation criteria. Studio syllabi and design reviews continue to raise student awareness of this issue. Also accessibility issues have now been introduced into our Environmental controls courses during the segment on conveying systems.

Causes for Concern from 2002 VTR:
Advising: The School has responded to this concern by reorganizing our staff to have one academic coordinator for architecture and another for construction management. This allows our architecture academic coordinator to focus upon advising for architecture students. First year advising is accomplished through mass advising from three faculty and the academic coordinator. Upon entering the school as freshman students are required to monitor their progress in courses and present this information before being advised. In our upper undergraduate years students are advised through appointed faculty and at the graduate program students are advised through the program coordinator and academic coordinators at both the Pullman and Spokane campus.

The school has implemented a policy that all students entering into the year must purchase laptop computers. Students are provided minimum specifications

Digital Media Integration:
second
for hardware and software. All printers and plotters are available for web based printing. At the second year computers are required to be used for a minimum of one project each semester
utilizing one of the software systems. Upper years are utilizing computers through courses in AutoCAD, Maya with new applications planned in Revit and other BIM software.

**Early Design Sequence:** Since the last visit we have assigned one faculty to coordinate all of our first year studios. In this capacity he is responsible for developing the problems and ensuring that there is consistency in content and delivery methods. We have also enacted a one credit fall lecture course for all first year students so that issues of design can be presented and discussed. In the second year we established through our areas of knowledge matrix (See appendix) criteria and outcomes for second year studio. This has provided a common framework for faculty to develop studio projects and develop consistency in the studios.

**Pullman Campus Operating Budget:**

**Interdisciplinary Design Institute (Spokane)**

**Faculty Development:** The faculty in Spokane receives the same development allocations as the Pullman faculty ($1,000/yr). In addition, when warranted additional funding is provided by the school. Faculty in Spokane have also been successful in acquiring travel grants to help offset travel costs.

Development activities are determined and organized from the Pullman campus through the Director of the School. Development funding particularly related to scholarships for students are available and awarded to students at both campuses.

**Computer Integration Issues:** Since the last report there is parity between the two campuses in terms of courses in computers. Spokane courses cover all the same material as Pullman courses.

**Information Resources:** Library facilities in Spokane offer students extensive library loan opportunities through the Pullman libraries as well as other universities. In addition the library in Spokane has a policy of purchasing all books requested by the faculty.

**Administrative Structure:** Since the last visit there has been a new leadership team appointed to the Spokane campus. This change has facilitated greater communication and collaboration between the two campuses. The shift in administration has provided greater clarity in terms of mission and the service learning component is now an integral part of the Design Institute. Also, the new Doctor of Design program in Spokane has facilitated the clarification of the mission in Spokane.

**Curriculum:** While coordination of the fall fourth year studio in Spokane still presents challenges improvements have been made. The Director of the school has been responsible in conjunction with the Director of the Institute for assigning architecture faculty to the fall studio. This communication has helped to provide greater consistency.

**Physical Resources:** The Spokane Design Institute now has two computer labs in the Academic One Building as well as computer stations in the newly renovated FO Berg Building. This is the building that houses graduate students. Over the past several years the issues that were present during the last visit due to computer technology have been remedied.
2.2 Summary of responses to changes in the NAAB Conditions

The school has responded to recent changes in the conditions for accreditation through the following actions.

- The school has had in place since 2001 a policy on studio culture. The policy which is on our website is presented to students at the beginning of each semester. See section 3.5 for full content of the policy.

- We are responding to the minimum requirements for credit hours by reevaluating our credit hours in the 1.5 year segment of the M Arch program. Over the next year we will be working on reconfiguring our studio sequence and adding hours to the program to meet the total credit hour requirement.

- through the following:

  o Sustainability is included in our ECS and studio courses. In addition we have in place a course that prepares students to become LEED accredited. The architecture 525 course was focused upon issues of globalization and sustainability and the school was an active participant in the "2010 teach in." The school also provided an entry into the most recent solar decathlon project. The school has also established the Institute for Sustainability. This institute is a collaboration between architecture, construction management, civil engineering and the WSU wood materials lab.

  o Client role in architecture is developed in our Architecture 573 Ethics and Practice course taught by Roger Williams FAIA. Issues of globalization, outsourcing, project delivery etc. are covered in this course as well as Arch 525. Issues of delivery systems will be introduced in the fall of 07 when a segment of the Arch 573 will be integrated with our construction management course on delivery systems.

  o The changes in technical requirements (costs and specifications) have been implemented in our spring semester third year studios. Also we have introduced a course in conceptual estimating as an elective course taught by the Assistant Director for Construction Management. This course is taught once per year and accommodates approximately 15 students. We have also developed a minor in construction management for architecture students. This option is open to about ten students per year. Architecture students are also allowed to take CM courses as architecture electives. We also have a small number of students that double major in architecture and construction management.
3. The Thirteen Conditions of Accreditation

3.1 Program Responses to NAAB Perspectives
    3.1.1 Architectural Education and the Academic Context
    3.1.2 Architectural Education and the Students
    3.1.3 Architectural Education and Registration
    3.1.4 Architectural Education and the Profession

3.1.5 Architectural Education and Society

3.2 Program Self Assessment Procedures

3.3 Public Information

3.4 Social Equity

3.5 StudioCulture

3.6 Human Resources

3.7 Human Resource Development

3.8 Physical Resources

3.9 Information Resources

3.10 Financial Resources

3.11 Administrative Resources

3.12 Professional Degrees and Curriculum
3.1.1 Program Response to the NAAB Perspectives

3.1.1 Architecture Education and the Academic Context

The School of Architecture and Construction Management is well placed within the university environment. Washington State University is a land grant institution with its historic focus on agriculture and engineering. The University also enjoys the offerings of a large College of Liberal Arts, which includes a School of Music and a Department of Fine Arts. Architecture, as a discipline provides an important linkage within the University's intellectual environment. The University's vigorous General Education Requirements (GER's) have a positive effect on the education of our students. Students at WSU must take a minimum of 40 credit hours of GER's. These include science, math, English and liberal arts. In addition, the GER's are developed in three tiers which must be completed at different years. Students are also required to take a minimum of one GER in the area of diversity. The school contributes to university GER's by offering four courses that students outside architecture may take for GER credit. These are Arch 202, 220 (tier I) and 428 (tier III). In addition professor Wang offers a tier III GER with a philosophy prefix, Phil 435 East West Architecture.

Students of the School have benefited greatly from the University's commitment to improve writing "across the curriculum." Architecture students can take advantage of tutors in the University Writing Center; and, WSU is the only major public research university in the country that requires an approved writing portfolio for graduation. The School offers four M courses (writing in the major) with a fifth one (arch 428) coming on line. Students in architecture are required to take a minimum of two M courses before graduation.

The School supports the University's nationally recognized Honors College. There are approximately 20 honors students in the school. One architecture faculty member is assigned to provide advising to these students.

The School has supported the University's efforts in establishing a multi-campus system by extending its programs to the Spokane campus. It is a primary participant in the Spokane Interdisciplinary Design Institute, composed of architecture, landscape architecture, interior design. Each Year one cohort of fourth year architecture students spend the year in Spokane engaging in interdisciplinary courses and service learning activities. Additionally, one cohort of 1.5 year M Arch students is residing at the Spokane campus. We have recently expanded the M Arch program to include 2.5 year option students who also reside at the Spokane campus. The school has four full time faculty in Spokane. The director of the school is responsible for faculty teaching assignments and performance reviews. The Director also works with the Director of the Institute to resolve and develop issues of mutual benefit.

Other linkages with the University have been through service. The faculty serves on a variety of University committees, including: Facilities Planning, faculty senate, Historic Preservation, Facilities and Academic Affairs. Other university contributions by faculty include International Programs Advisory Committee, Global Studies Committee, Internalization Task Force, President's Teaching Academy, Critical Thinking Initiative, Writing Programs and Summer Alive! In addition one faculty has recently been appointed to the WSU Presidents Teaching Academy. We have also been successful in having two of our alumni receive the 2007 WSU Regents Alumni Achievement Award. This is the highest award the university bestows upon alumni. Past recipients include Nobel laureates and Edward R. Murrow.
3.1.2 Architectural Education and the Students

The school fosters and encourages student involvement and responsibility for their education. The school provides the forums and mechanisms for students to be engaged in issues of architecture as well as pertinent social and cultural forces.

In terms of governance the School Advisory Committee is a faculty elected committee to work with the Director in establishing policy decisions for the school. The AIAS student president as well as the Building Without Borders President sit on this committee. Topics over the recent year have included grading policies, issues of Architecture and CM integration and the purchase of new equipment including laser cutter and CNC. Also each month the Director meets with the leadership of the AIAS to discuss issues in the school and receive feedback from the students. Each year the school provides resources for the president and vice president of AIAS to attend the Grassroots conference.

One of the most significant changes we have made in terms of students education is the implementation of our required study tours. Each year our third and fourth year students are required to participate in a domestic study tour. These faculty led tours provide on site experiences to various cities and environments in the US. Tours have included Chicago, New York, Boston, LA, and Phoenix etc. These trips are for about five days and students pay for these tours through course fees. At the graduate level all of our students participate in a foreign studies tour in the spring. These tours include Amsterdam and Barcelona. The study tours are critical to providing our students with a diverse understanding of our global culture and exposure to values and beliefs that differ from their own. Students are also provided opportunities to study overseas through faculty led School programs as well as programs from other institutions. WSU faculty led programs also include exposure to professional practice which has resulted in several of our students receiving international internship positions in London and Australia.

We have also instituted a program for our M Arch students where they receive elective credit to work with faculty on specific research topics. Students will work with a faculty with the purpose of publishing a research proposal. The publication may take the form of a conference paper, journal article or architectural competition. In this way students begin to understand the value and methods of architectural research.

We endeavor to instill in our students a sense of social responsibility and professional ethics. They are encouraged to be team players, to work with and be sensitive to others’ needs. The students to experience collaborative design with the sister disciplines of landscape

Interdisciplinary Design Institute in Spokane provides an excellent opportunity for our 4th and 5th year architecture and interior design.
3.1.3 Architecture Education and Registration

With the transformation of our program from the Bachelor of Architecture to the Master of Architecture we have reconfigured our course work and expectations for our students. At the same time the school is committed to providing an architectural education that prepares our students to become licensed professional architects. Our graduate program is focused on the comprehensive design of a building and environment that addresses the current issues facing architecture, our culture and our civilization at large.

To that end our students become knowledgeable of the profession through their coursework as well as the following:

- Each year the State of Washington Licensing holds one of its meeting at our school. During this day the board meets with students on a formal and informal manner to discuss current laws and regulations relating to architecture as well as requirements for IDP.

- The School reinforces these issues throughout the year through our Ethics and Practice course as well as our guest lecture series. The Callison Endowment provides funding for guest lectures to come to campus to discuss issues architectural registration.

- As part of the Master of Architecture program students are required to participate in a summer internship during the summer between their second and third semester. The internship is set up with a series of firms on the west coast. Students work directly with a mentor in the firm and are required to maintain weekly logs. The mentor in conjunction with the graduate coordinator work together to establish a grade for the course at the end of the summer. The internship is modeled after the IDP program.

- Over the past several years we have taken a proactive stance in terms of hiring architects from the Seattle area to come to Pullman and Spokane to teach courses in our program. (See section 3.1.4).

Our educational experience provides the necessary preparation for the ethical and professional responsibilities of the architect as well as giving the students the needed ideas and skills to perform as registered professionals.
3.1.4 Architecture Education and the Profession

Preparing for the profession has been a long-standing mission of the WSU School of Architecture and Construction Management. The critical changes in the profession have been introduced to our students through some specific initiatives.

Integrated Education series: In the spring of 2006 the school implemented its first integrated education series. This program takes advantage of the uniqueness of the school housing programs in architecture and construction management. The mission of this program is to:

*To promote integrated education between architecture and construction management through innovation in academic initiatives and to foster enhanced communication between the professions of architecture, construction and educational institutions.*

To that end we have initiated a three part program for integration. It is as follows:

- **The First Curriculum:** The first curriculum focuses upon the teaching of discipline specific requirements. These are the areas of knowledge, skill sets and tools necessary for students to function and advance the professions of architecture and construction management.

- **The Second Curriculum:** The second curriculum for integration is demonstrated through required courses that are shared between architecture and construction management students. These include all structures, materials and environmental control courses. In addition minors in each field allow students to gain fundamental knowledge regarding each complimentary discipline.

- **The Third Curriculum:** The third curriculum is a collaborative partnership between the school and professions of architecture and construction. In this curriculum the school sponsors symposiums that are developed and delivered by the school and leaders from the profession. During the spring of 2006 the school sponsored three symposiums where over 30 professionals participated and conducted seminars on topics such as leadership and team building, design and communication and delivery systems. The third curriculum continued during the spring of 2007 with a symposium on February 23, 2007. This symposium was a hands on problem solving workshop where architecture and CM students were working together on specific problem types. Students were divided in to teams from each discipline and were asked to solve specific design and construction problems and then make verbal and graphic presentations of their solutions (See appendix).

The School of Architecture and Construction Management at WSU is unique as one of a limited number of universities in the nation where the two disciplines are housed within the same academic unit. Our goal is to utilize this uniqueness to develop a program where excellence in architecture and construction are a result of collaboration and integration. When the board meets in Pullman in the fall semester board members will make presentations to students and participate in studio reviews as part of the meeting.

The School’s program in Spokane provides opportunities for students to link with area professionals. It also provides a forum for professionals to interact with scholars and students in debating issues pertinent to the profession and the academy. Many students at the Spokane campus work in local firms and the architectural community in Spokane has been very supportive of our students and the program.

Practitioners regularly participate in design reviews, seminars, and panel discussions and attend lectures, exhibits and other events of the School, on both the Pullman and Spokane campuses. Many faculty of the School are active members of AIA. The School has regularly participated in
AIA Northwest and Pacific Region meetings by organizing exhibits of student and faculty work and other activities.

The school Advisory Board is composed of approximately 20 individuals from architecture and construction management. The board meets twice a year and has critical in implementing our integrated education series as well as helping to formulate curriculum changes and provide feedback for our programs.

Finally, the school has been very active in bringing to campus architects from Seattle and Portland area to teach in the school. This has yielded a new infusion of personalities into the program that is able to speak about current issues in architectural practice and design. These individuals include:

- Roger Williams FAIA
- Richard Hobbs FAIA
- Stanford Wyatt AIA
- Rena Klien FAIA
- Chris Patano AIA
- Robert Hermanson AIA
3.1.5 Architecture Education and Society
In its broadest sense, education deals with values. Architectural education at WSU is seen as a value-generating endeavor that interacts with society in a symbiotic and interactive way. As the needs of society changes in this complex global community, we see our responsibility to prepare our students to deal with issues of a plural society in this ever-changing context. The school subscribes the philosophy that students must be exposed to a diversity of ideas and values in order for them to make informed decisions regarding their life and architecture. This is achieved in part through the following.

- The school has a very diverse faculty with individuals from six different nationalities. This provides our students extensive expertise and well as varied cultural values.
- The students experience cultural and social issues from our study tours and off campus programs (The school is cited by the university as a model program for international study) to our special projects (solar Decathlon) and service learning programs in Spokane.

We continually emphasize to our students the need to have empathy with different cultural views and to develop the skills to hear other voices and to be able to work in a multicultural society.
3.2 Program Self-Assessment

Self Assessment Process

The school implements five formal assessment processes that yield specific data and information and a series of informal processes that provide anecdotal feedback.

Formal Processes: The University has established that all programs must develop a series of benchmarks by which they can measure and gage their progress and development. The school has established benchmarks and each year must report through the dean to the Provost on our progress. The format and categories for the benchmarks were determined and established by the Provost. The benchmarks were established in 2004 and the responses reflect the most recent accomplishments in 2006.

Self Assessment 1. Benchmarking

School of Architecture and Construction Management

Benchmarks

Accomplishments and Progress: May 2006

1. The undergraduate experience:

Benchmark: Percent of students engaged in interdisciplinary courses
Target: 503 of undergraduates to have courses/ studio experiences that provide interdisciplinary work by graduation.
Impact: Develops understanding of related disciplines and professional context for practice and improves level of undergraduate experience.
Accomplishments: Since 2004 we have been able to achieve this goal through a series of initiatives and innovative activities. The following are examples of new interdisciplinary activities.

- Architecture, construction management, engineering and Interior design students worked together on the solar decathlon project which was designed, built and exhibited in the mall in Washington DC in October of 2005.
- Spring of 2006 two cohorts of third year architecture students worked with CM students and faculty at the wood materials lab for the proposed design of the WSU Institute for materials and building innovation. This proposed Institute will become a component of the college capital campaign initiative.
- Spring 2006 the school sponsored three symposiums on integrated education. The symposiums were focused upon the integrative nature of architecture and construction management. Over 30 individuals from each profession participated in the symposia leading discussions, seminars and panel discussions.
- One cohort of our fourth year and master of architecture students are collocated at the Spokane Design Institute where they are taking courses with Interior design and landscape architecture students.

Benchmark: Learning outcomes.
Target: Exceed minimum assessment and learning outcomes as per accreditation requirements.
Impact: Provides mechanisms for evaluating the quality of education and for making future curriculum changes.
Accomplishments: Academic year 2005 – 2006 was spent reconfiguring course sequence and content in construction management to exceed accreditation requirements. These changes will be implemented in the fall of 2007. Senior exit interviews were distributed and collected for the second year. In architecture in
Intiatives were developed to align theory and history courses and new curriculum changes were developed for studio content.

Benchmark: Percent of student increase in enrollment.
Target: Obtain funding for new faculty to increase enrollment in undergraduate construction management program by 253.
Impact: Will address high demand from industry and students for construction management graduates. Increases visibility and contributes to economic growth in Washington.
Accomplishments: During the fall semester we received a new CM faculty position and in the spring of 2006 we were awarded a high demand position. As a result we will be doubling enrollment in construction management to 50 students per year starting fall 2006. In addition starting fall 2006 all four years of the CM program will be located at the Pullman campus.

Benchmark: Expand critical reading and writing.
Target: Increase critical reading and writing assignments by 253
Impact: Increases awareness of critical discourses related to each discipline and improves level of undergraduate education.
Accomplishments: During the fall semester we coordinated the course content and sequence between our history and theory courses. This involved the coordination of reading material for each of the courses. Also in the spring semester we instituted a required reading component for each design studio. Readings were utilized throughout the semester through projects and short seminars.

2. The Graduate Experience

Benchmark: Percent of new Enrollment in Master of Architecture program.
Target: Obtain funding for faculty and staff to increase enrollment in M Arch program by 253.
Impact: New enrollment will address national demand for this degree. Revenue generated will support new faculty for increased enrollment.
Accomplishments: Starting in the fall of 2006 we will be offering a new cohort of Master of Architecture graduate students at the Spokane campus. We have admitted 10 students to the 2.5 year option which represents a 503 increase in graduate enrollment for the school and 1003 in Spokane. It is expected that over the next several years we will expand the enrollment to include 3.5 year option students.

Benchmark: Percent increase in Graduate scholarships/ internships.
Target: 503 increase in scholarships/ internships supported from profession for graduate education.
Impact: New scholarships/ internships foster interconnection with profession and help to offset cost of education.
Accomplishments: We have seen a about a 403 increase in scholarships dedicated to our graduate students. This post year has been spent working with architecture firms and proposing sponsorship of scholarship. By fall 2006 we should be able to exceed our 503 goal.

Benchmark: Percentage of students participating in Study Abroad experiences.
Target: 603 of students to have overseas experience by graduation.
Impact: Will facilitate broad exposure for students to diverse cultural and global experiences.
Accomplishments: Our foreign studies experience for students continues to expand. With the continuation of our international study tours for graduate students all M Arch students now have international travel experiences. This summer we have a six week Italy program coordinated by two of our faculty and 18 students are
participating in that program. In December of 2005 we had a study tour to China for two weeks during the Christmas holiday. Currently about 30-40% of our undergraduates are experiencing International travel. We also are continuing with our domestic study tour for all third and fourth year students and are considering expanding this program to our second year students.

**Benchmark:** Percentage of outside critics/lecturers
**Target:** 25% increase in invited critics/lectures from outside the region.
**Impact:** Will provide opportunities for students to interact with distinguished individuals from the professions.

**Benchmark:** Percentage of graduate students with publication experience.
**Target:** 103 of graduate students each year to author papers with faculty support for presentation at conferences or publication in scholarly journals.
**Impact:** Will provide opportunities for students to gain experience in conducting research with faculty and presenting scholarly work and begin to develop scholarly career path.

**Accomplishments:** This past year we had two graduate students out of 16 working with faculty on scholarship projects. Both students traveled with faculty to conferences and presented papers in which they either co-authored and/or researched.

### 3. Research and Scholarship

**Benchmark:** Number of Research assistants for faculty.
**Target:** Faculty with established/proposed research to select a minimum of one graduate student to assist in research projects.
**Impact:** Will provide opportunities for students to work on individual basis with faculty on research projects and gain experience in scholarly activities.

**Accomplishments:** See above

**Benchmark:** Percent of faculty publishing/exhibiting work.
**Target:** 90% of faculty to publish, exhibit work, receive grants or awards and/or present at conferences each year.
**Impact:** Allows for faculty contributions to the advancement of the professions.

**Accomplishments:** This objective has been achieved in the areas of scholarship through research in papers and books or design work.

**Benchmark:** Percentage of faculty engaged in interdisciplinary initiatives through grants/projects/service etc.
**Target:** 203 of faculty research each year to have interdisciplinary focus.
**Impact:** Provides opportunities for faculty to collaborate across disciplines.

### 4. Societal Impact

**Benchmark:** Increase external funding to support school initiatives.
**Target:** 25% increase in external funding for school development. Targeted initiatives include school publications/journals/symposiums/courses for profession etc.

**Impact:** Will allow for further outreach to professions and increase national awareness of school.

**Accomplishments:** See above on Integrated Education symposium. The school has had a 15% increase in development donations over the past year.

**Benchmark:** Percentage of students receiving internship opportunities.
**Target:** 75% of students graduating to have a minimum of two summers of internships in professional firms.
**Impact:** Will ensure that students have acquired preliminary experience in professional practice environments.
Accomplishments: 953 of our graduate students receive internship opportunities between their second and third semester. Current statistics for undergraduates is not available however a conservative estimate is the 503 of undergraduates (second year – fourth year) have summer internships.

Benchmark: Percent of faculty engaged in editorial positions and national/international committees.
Target: 253
Impact: Provides professional service to advance professions.
Accomplishments: Currently we have three faculty serving on national editorial boards which is about 123 of the entire faculty.

Benchmark: Number of service learning opportunities.
Target: Provide a minimum of one service learning experience per student in the upper division courses.
Impact: Provides students opportunities to engage in projects that are significant to the community.
Accomplishments: Students at the Spokane campus are involved in service learning opportunities. In Pullman students involved in student organizations such as AIAS, ASCM and Builders without Borders participate in community service activities.

Self Assessment method 2: Student Exit Survey:
Prior to each graduation students are asked to fill out an exit survey. The survey provides information to the school on effectiveness of courses, job opportunities and areas of improvement. A copy of the exit survey is provided in the appendix.

Self Assessment method 3: School Advisory Board:
The advisory board plays an instrumental role in advising and assessing our program. The board meets twice each year. Each meeting is devoted to updating board members on current issues. Each meeting has specific goals and objectives for the board to provide input. During the reconfiguration of the program from the B Arch to M Arch the board was very active in helping to influence curriculum and providing assessment of our students.

Self Assessment method 4: Faculty Annual Reviews:
Each year the Director engages in an annual review process with each faculty. The purpose of the review is to provide feedback on accomplishments as well as areas of development. The annual review becomes one of the measures that are used in determining faculty raises.

Self Assessment method 5: Course Evaluations:
Every course in the program is evaluated by the students through formal course evaluations. Course evaluations are made available to administration of the School as well as the faculty member to be used along with other indicators in the tenure and promotion process.

Informal Assessment Procedures:
Faculty invite professional architects (both WSU alumni and non-alumni) as outside reviewers of studio projects and in the process receive evaluative input from the participants. During field trips, while visiting firms of the region, faculty hold meetings with employers and graduates working in the firms to receive input regarding the preparation of the graduates as they join the work force. Regular alumni gatherings are held in the region for the purpose of informing them about the current developments of the School and programmatic changes as well as inviting their feedback on outside perceptions of the School.
3.3 Public Information
Currently students who enroll in the School of Architecture and Construction Management receive literature and information on the program, curriculum and School policies through two different venues. The first is the General Catalog/University Website and School Website. The website(s) and catalog describe the program as follows:

**Bachelor of Science in Architectural Studies Requirements and Core Courses**
The four-year pre-professional Bachelor of Science in architectural studies is a program primarily for those who want a foundation in the study of architecture. This degree at WSU is not accredited by the National Architectural Accrediting Board (NAAB) but instead is designed for students who want to work in an architecturally related discipline such as planning, technology, project and community development, or within government agencies. However, this degree may also be used as a preparation for continued education in a professional degree program.

Students who pursue this option at WSU must complete all University requirements in addition to school requirements listed below. Due to limitations of space and faculty, enrollment in second-year courses and certification as a major in architecture can be granted to only the most qualified students.

**PRE-ARCHITECTURE:**

**FRESHMAN YEAR** (First Semester)
Arch 101 - Graphic Communications
GER (General Education Requirement)
or Math
or Physics requirement
Engl 101 - Introductory writing
GenEd 110 or 111 (GER)-World Civilization I or II
GER electives

**FRESHMAN YEAR** (Second Semester)
Arch 103 - Visual Design
Arch 202 - The Built Environment
GER elective
Math 171 - Calculus I
or Math 206 - Mathematical Analysis for Architects
or Phys 101 - General Physics
or Phys 201 - General Physics

**CERTIFIED PROGRAM:**
The School of Architecture and Construction Management accepts 60 students into the second year. WSU students who wish to enroll in second year must submit an application to the School of Architecture and Construction Management during the previous spring semester. To be considered, a student must have completed at least 26 semester credit hours of architectural program requirements. Selection is based on the student's GPA in the 26+ semester credit hours of required course work. If students do not complete Arch 101, 103, 201, and 203 at WSU, they will be required to submit visual evidence of their architectural graphic and design work for review by the Admissions Committee.
SOPHOMORE YEAR (First Semester)
Arch 201-Architectural Design I
Arch 220-Ancient History
Arch 330-Materials/Construction I
Phys 101-General Physics [P]
or 201-Physics for Scientists and Engineers [P]
or Math GER

SOPHOMORE YEAR (Second Semester)
Arch 203-Architectural Design II
Arch 209-Design Theory I
Biological Sciences (GER)
Physical Sciences (GER)
Social Sciences (GER)

JUNIOR YEAR (First Semester)
Arch 301-Architectural Design III
Arch 324-Renaissance to 19th Century Architecture
Arch 351-Architectural Structures I
Arch 353-Architectural Structures Studio
Arch 432-Environmental Controls I

JUNIOR YEAR (Second Semester)
Arch 303-Architectural Design
Arch 352-Architectural Structures II
Arch 354-Architectural Structures Studio II
Arch 433-Environmental Controls II

SENIOR YEAR (First Semester)
Arch 401-Architectural Design V
Arch 451-Computer-aided Design I
Arch 472-Construction/Communication/Codes
Tier III
GER
GER

Master of Architecture Program
The School of Architecture and Construction Management offers an accredited (NAAB) Master of Architecture degree. Once completed, this degree allows students to participate in an architect internship program and qualify for the State Architecture Licensing exam. (Note that most states require an accredited degree by the National Architectural Accrediting Board (NAAB) in order to take the licensing exam.)

The accredited graduate program at WSU offers two different tracks for completing the Master of Architecture degree. Track 1 is a 1.1 year program (3 semesters plus summer, 40 credits) and is specifically for students that have a four year undergraduate Bachelor of Science in Architectural Studies from WSU or a professional accredited degree (B Arch) from a university in the U.S. Track 2 is a 2.1 year (5 semesters plus summer) program that is available for students who have a four year undergraduate pre-professional degree in architecture from a U.S. university or its equivalent. Track 2 is also available for students who need additional technical coursework and or additional studio work. Determination for admission into Track 1 or Track 2 is based upon accomplishments and skills in course work and design as demonstrated through the student portfolio.
The Master of Architecture is offered at both the Pullman and Spokane campuses. Approximately two thirds of Track 1 Master of Architecture students study at the Pullman campus. The remaining one third conducts their studies at the Interdisciplinary Design Institute at WSU in Spokane. Track 2 students study at the Spokane campus. Specific first year coursework for Track 2 students will be based upon previous academic experience.

Master of Architecture students will engage in coursework in site design, structures, technology and history and theory. The culmination of graduate study is a two semester graduate studio project. It is expected that the project be based on a defined hypothesis and demonstrate a comprehensive understanding and solution to a particular issue in architecture.

Master of Architecture Curriculum (final 3 semesters plus summer)
Note: Curriculum does not show Track 2 required undergraduate coursework as it is individually determined by an Admissions Committee based on applicant's previous degrees and relevant coursework.

Fall: Semester one - 12 credits
Arch 527 Site and Landscape Design - 3 credits
Arch 531 Advanced Tectonics - 3 credits
Arch 515 Research Methods and Programming - 3 credits
Arch 563 Structures III - 3 credits

Spring: Semester two - 12 credits
Arch 525 History and Theory - 3 credits
Arch 511 Graduate Design Studio - 6 credits
Arch 573 Ethics and Professional Practice - 3 credits

Summer - 4 credits
Arch 580 Internship/Travel/Independent Study

Fall - Semester three - 12 credits
Arch 542 Issues in Architecture - 3 credits
Arch 513 Graduate Design Studio - 6 credits
Elective (300 level or above) - 3 credit

National Architectural Accrediting Board Statement

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit US professional degree programs in architecture, recognizes two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a five year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards.

Masters degree programs may consist of a pre-professional undergraduate degree and a professional graduate, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.
The NAAB grants candidacy status to new programs that have developed viable plans for achieving initial accreditation. Candidacy status indicates that a program should be accredited within six years of achieving candidacy, if its plan is properly implemented.

The second method by which students receive information is through School recruitment materials. This material is distributed to all incoming students either through the Summer Alive program where incoming students register for courses or through freshman and transfer student orientation. Material contained in the recruitment brochures (see appendix) include all information in the General Catalog as well as further detailed information regarding off campus programs such as foreign studies and the WSU Branch Campus options. Students also receive information regarding accreditation as each syllabus for all courses is required to identify which student performance criteria that the course covers.
3.4 Social Equity

Policies Concerning Equity in Hiring, Compensation and Promotion:

Washington State University and the School of Architecture and Construction Management policy prohibits discrimination on the basis of race and sex, including sexual harassment, religion, age, color, creed, national or ethnic origin, physical, mental or sensory disability, martial status, sexual orientation and status as a Vietnam-era or disabled veteran in the recruitment and admission of students, the recruitment, employment and retention of faculty and staff, and the operation of all university programs, activities and services. In addition all searches conducted for faculty at WSU are subject to review by the Center for Human Rights. We also have one of our staff who is designated as our CHR person who has taken the courses in procedures for hiring. In terms of compensation and promotion WSU like many other universities has had minimal raises for faculty over the last years. However the determinant for faculty raises comes from annual performance reviews as well as salary compression.

University Policies on Equity and Diversity

The University is committed to providing equity and diversity for all WSU students. The office of Equity and Diversity is headed by Michael Tate, Vice President for Equity and Diversity. This office is proactive in providing information and establishing policies that reinforce all issues of diversity. Their mission statement and strategic plan read in part as follows.

The following serves as the framework for the University's Strategic Plan for Equity and Diversity

University Mission

As a public land-grant and research institution of distinction, Washington State University enhances the intellectual, creative, and practical abilities of the individuals, institutions, and communities that we serve by fostering learning, inquiry, and engagement. We are committed to a culture of learning that challenges, inspires, liberates, and ultimately transforms the hearts, minds, and actions of individuals, eliminating prejudice. Our differences are expressed in many ways including race, sex, age, physical and mental ability, sexual orientation, religion, class, philosophy, and culture. Respect for all persons and their contribution is essential to achieving our mission.

Vision for Equity and Diversity

Washington State University advances equity and diversity throughout the institution and in the communities it serves, by expanding inclusion, providing opportunities, and encouraging individual and community development and achievement.

Equity is the principle that every person deserves fair and ethical treatment: it is the foundation of our strategic goal of trust and respect in all we do.

Diversity, as defined in Washington State University policy and practice, is those differences, including race, sex, religion, age, color, creed, national or ethnic origin, language, physical, mental, or sensory disability, marital status, sexual orientation, class and status as a Vietnam era or disabled veteran, which enrich and complicate our interactions with one another.

Diversity and equity are central to the University's mission for these reasons:

- We have an ethical responsibility to establish a morejust and equitable society.
- The strength of our nation's democracy depends on the broadest possible body of educated and engaged citizens participating fully in civic life.
- As a land-grant institution, we are particularly charged with service to all the people of the state of Washington and with extending the benefits of higher education to as many citizens as possible.
- Our capacity to educate students for success depends on the richness and diversity of their educational environment.
- The economic and social well-being of our state depends on the innovation and growth driven by diverse perspectives and ideas.

**School Policies**

The School has adopted a series of policies (see appendix) in 2001 that establish expectations for students so that all can learn in a supportive and positive manner. The policies are published on our website and each year at the beginning of the semester these policies are reviewed with all students. The policies include studio environment policy, course repeat policy, writing policy, study tour policy as well as others. The preface to these policies describes the atmosphere we expect in the school.

The School of Architecture and Construction Management at Washington State University is committed to providing our community of students with an exceptional educational experience. Our student population comes from diverse social, economic, and ethnic backgrounds from throughout the United States and many foreign countries. As part of our commitment to our students this manual of the School's policies and procedures has been developed and approved by the faculty. The following is the introduction taken from the school handbook on policies for students.

*The following policies are specific to the School. As such, they are supplemental to other policies and procedures of the College and the University. University policies are outlined in the University's General Catalog. Students should become familiar with the General Catalog for the year in which they entered WSU as the General Catalog establishes University guidelines, policies and expectations for WSU students.*

*Also included in this document is accreditation criterion form the National Architectural Accrediting Board. (NAAB) Accreditation procedures require that all students must receive copies of these criteria. I encourage you to read through this material as it directly impacts your education.*

*If at any time you have questions or concerns about the contents of this manual please feel free to contact any faculty or staff member or the Director of the School. All inquiries are welcome and will be held in confidentiality.*

**Diversity In Faculty Appointments and Promotions**

During spring semester of 2007, the full-time faculty in the School of Architecture and Construction Management numbered 24. Visiting and adjunct faculty numbered 6. Of the full-time faculty, four members are assigned to the Spokane campus. The composition of the full-time faculty, including tenured and tenure-track is as follows: males compose 87.53, females compose 12.53. The composition of the visiting faculty during the spring semester of 2007 is 333 females. The diversity of faculty is reflected in their ethnic background. We currently have two faculty from Afghanistan, one each from Ireland, Poland, Japan, Albania and Iraq.

**Diversity In Student Admissions and Retention**

**Student Enrollment:**

During the spring semester of 2007 the following represents our student profile for architecture. In the fall semester, the enrollment records of the University provide the following statistics for the School of Architecture and Construction Management. The enrollment in architecture is typically: first-year, first semester, 200 students; first-year second semester, 120 students; second-year 60-64 students; and third, fourth and fifth year 60 students each. Male students compose
of the student body, female students compose 283, while minorities compose 123. For those students expressing an interest in architecture, male students compose 733, female students compose 273 and minorities compose 153.

**Student Access to Policies and Participation in Curriculum Review:**
As stated earlier students actively participate in our School Advisory Committee which is the primary source for the initial development of policies and procedures for the school. The Director's monthly meetings with student leadership from AIAS and ASCM also provide a forum for input into decision making. Recent decisions where students had a critical input include the policy for the purchase of computers at the second year, the purchase of laser cutter and CNC machine and input into the discussion regarding grading procedures.

Students also play an active role in faculty searches as typically there is a student representative on the committee. Also during the interview process students are invited to attend and fill out an evaluation form that serves to inform the faculty and Director on students responses. We also solicit student input on the integrated Education Series in terms of providing feedback through a formal assessment survey and through the student representatives on the School Advisory Committee.
3.5 Studio Culture
The school has had a studio culture policy that was adopted in 2001. (See section 4.2). Each year this policy is reviewed with all students and all of our policies are distributed in paper form to incoming freshman students. The studio culture policy is one of a series of policies that the school has adopted that make up the student policy handbook. Additional policies cover collegiality, indoor air quality, study tours, shop and writing. All policies are published on the school website.
3.6 Human Resources:

**Students Educational Background:**
The majority of the student body for the school comes from the West Coast of the United States. Most are from Washington State, but California, Oregon, Hawaii and Alaska are also represented. For the year 2006 – 2007 approximately 12% of the architecture students were Asian American/ Pacific Islanders. 2% were African American, while approximately 5% were Hispanic.

Students expressing an interest in architecture register in the first-year studio. This studio, ARCH 101, normally contains about 250 students. Included in this are interior design students which comprise about 50 students. In the spring semester of the first year, the design studio ARCH 103 will typically contain 150 students of which 30 – 40 will be interior design students. Our certified program begins at the second year. All students must apply for second year. Acceptance into the certified program is based upon grade point averages in all architecture and specific university GER courses. Students must have a minimum of 26 credit hours to be considered for admission into second year. Typically the cutoff for admission into second year is 3.0 with the average being 3.3. We typically accept 60 – 65 into second year of which a small number will be transfer students. Once students are accepted into the second year they will matriculate through the four year program as long as they remain in good standing academically. We typically experience about a 10% attrition rate from second through fourth year.

**Graduate Program:**
All students must apply for admission into the graduate program. Applications must contain an essay, portfolio and letters of reference for non WSU students. All applications are reviewed by the Graduate Review Committee which is comprised of the Director, Assistant Director for Architecture and the Graduate Program Coordinator. All faculty have the opportunity to review applications and make recommendations to the committee. Students entering the graduate program must have a minimum 3.0 GPA. Further, all students must adhere to a specific set of standards and expectations developed by the school for graduation (See Appendix). As the program is now in the fifth year we are receiving applications and accepting students from outside of WSU. This is helping to create a more diverse students population in the program. We have also expanded the standard 1.5 year program to include a 2.5 year option with plans to expand to a 3.5 year option within the next several years. Time to graduation for the four year program is between 4.5 and 5 years and for the graduate program is slightly over 1.5 years.

**Faculty:**
For the academic year 2006 – 2007 the school has 24 full time architecture and construction management faculty. In addition there were six adjunct faculty for the year. These numbers include three architecture faculty in Spokane with an additional one position currently in search status. The faculty dedicated to Construction Management teaching is six however there is significant crossover between Architecture and CM faculty in teaching courses. We currently have six of our permanent faculty on tenure track. Of the remaining tenured faculty 7 are full professors with the remaining being Associate Professors. When hiring persons for permanent tenure-track positions, the School must conduct a national search, while temporary positions require only a regional search and can be appointed by the Director. All search procedures for permanent positions, including position description, type and extent of advertising, methods of screening, etc. must follow WSU Affirmative Action procedures. For the hiring of minorities or other protected groups, the University aims at increasing faculty representation in these categories through the extra care it takes to
encourage people to apply and subsequently make sure to screen them fairly and consistently with the University's positive action plan to increase diversity on the campus.

**Teaching and other Responsibilities**

The first duties for full-time faculty begin with their responsibility to teaching. Typically, each faculty is responsible for two courses each semester. This load may vary to accommodate faculty leave and tenure track faculty may receive a lighter load in one semester to help with their research work. Typical design studios average a student teacher ratio of 1:15. This may vary slightly depending upon specific enrollment. At the graduate level ratios range from 1:7 – 1:14. The exception to the above is at the first year where ratios are approximately 1:28. All courses are evaluated each semester by students with the results being reviewed by the Director. The student reviews account for one component of the annual review process.

All tenure and tenure track faculty are required to participate in research activity. When tenure track faculty is hired they are assigned two faculty mentors who work with them to help clarify and define a research agenda. There is flexibility in the subject matter but faculty is required to show evidence of how their research informs and enhances their teaching. Faculty is allotted $1,000 I yr for development activities for travel and conference presentations. It has been the policy of the school to provide additional funding for tenure track faculty to facilitate their research and presentations. Each year tenure track faculty are to present their work to the faculty through an oral and graphic presentation.

for the tenure track faculty. All of these activities are part of the school tenure required

Tenured faculty then provides written feedback to the Director who summarizes the comments and promotion process.

to the School is provided by the faculty in their willingness to participate on various Service School committees: Admission and Academic Affairs Committee, Construction Management Curriculum Committee, Facilities, Equipment and Safety Committee, Graduate Program Committee, Honors, Awards and Scholarship Committee, School Advisory Committee as well as others. Faculty is also committed to advising with each faculty member advising an average of 15 - 20 students. Other positions that members of the faculty fulfill are Assistant Director for Architecture, Assistant Director for Construction Management, Graduate Program Coordinator AIAS Advisor, ACSA Councillor, ACCE, ASC and ASCM Councillor, AIA Education Liaison, DIS Coordinator, Exhibitions/Lectures Coordinator, Internship Program Coordinator, Foreign Studies Coordinator, Sigma Lambi Chi Advisor, Coordinator for the Slide Library.

**Administration**

The administration of the School consists of the following individuals.

- Director
- Assistant Director for Architecture.
- Assistant Director for Construction Management.
- Graduate Program Coordinator.
- First year coordinator and 2nd, 3rd, and 4th year studio coordinators.

In addition, the school has six staff including an Office Manager, Two Academic Coordinators, Information Systems Manager, Information Systems Coordinator and a clerical person.
The director's role and responsibilities are defined in the *Faculty Manual*. Accordingly, the director provides leadership and management in logistical support, curriculum development, instructional assignment, monitoring of facilities and equipment, budgeting, external
development support, alumni relations and representing the School to the College, University, community and profession. The director seeks advice and input from the faculty in various situations through individual contributions, the School’s committee system, and the faculty meetings. The director will articulate to the faculty, College, University, profession, community and students’ missions and goals of the School of Architecture and Construction Management and strive for their fulfillment through an efficient, pragmatic and yet comprehensive and democratic decision-making process.

The Assistant Director for Architecture responsibilities are defined as follows:

- Serves as assistant to the director of the School.
- In the absence of the director, the assistant director represents the School to the University, students and profession in attending meetings, signing papers and other responsibilities as deemed necessary by the director.
- Coordinators undergraduate architecture program; chairs meetings of the design level coordinators. Chairs Academic Affairs Committee.
- Coordinates student advising.
- Helps in preparation of accreditation documents.
- Coordinates in recruitment of undergraduate architecture students.
- Overall implementation of all aspects of the undergraduate program.

Graduate Program Coordinator

- Advises the director on matters related to the Graduate Program.
- Works with the director in long term planning.
- Heads the School’s Graduate Committee.
- Functions as a liaison between the director and Graduate School.
- Coordinates student admission process, thesis reviews.
- Helps on scheduling of graduate courses.
- Helps on publicity material for the Graduate Program.
- Coordinate graduate internship program.
- Coordinates graduate study tour.
- Other responsibilities as established by the director.

Staff:

Since the last visit the school staff has been completely reorganized. The office manager is responsible for overseeing the overall management of the office including budget, staff assignments, director’s correspondence and coordinating all of the daily activities. The office manager is responsible for maintaining strict confidentiality of school personnel issues.

The two Academic Coordinators are responsible for coordinating all of the advising issues for each discipline. They work on a daily basis with students regarding admission to the program, resolving scheduling conflicts and ensuring that our policies are aligned with changes in university policy. They are also responsible for helping with all of our recruiting in the school meeting with potential students and their families.

Our two information support staff are responsible for maintaining and implementing all of our technology within the school. In addition the information systems manager works closely with the director to develop long range planning and strategies for new technologies that need to be implemented in the school. They also support faculty in the teaching of computer courses, coordinate computer activities and maintenance, coordinate intercampus networking and also telecommunications and networking systems.
Shops:
The School maintains two shops. The first is in Carpenter Hall. This shop has small power and hand tools and will have a CNC machine and laser cutter by the fall of 2007. The larger shop in the engineering complex has larger power tools and space to construct large projects (i.e. solar decathlon project). For the fall we will have time shop person for the Carpenter Hall shop to help with the new digital equipment. The engineering shop is supervised by college staff. Both shops are also supported with trained TA's.
3.7 Human Resource Development

Policy Regarding Human Resource Development Opportunities

Faculty and staff development opportunities are important to the School. Beyond the normal support for tenure and promotion, the School encourages each and every faculty member to define areas of scholarly and professional interests and provides appropriate leave time and/or financial support for growth. Travel monies are made available for nearly every request from faculty for peer-reviewed papers and presentations both in the US and abroad. Also, the school has a policy of linking faculty with graduate students to assist in specific research areas. The School supports a formal mentoring program for tenure track faculty and has developed a tenure and promotion policy that integrates with the college and university requirements (See Appendix). In addition, staff are encouraged and supported in development opportunities both on campus and at other locations.

Guest Lecturers and Critics Brought to the Program since Previous Site Visit

Lectures on the Pullman Campus

The School of Architecture and Construction Management's lecture series brings to the Pullman campus a wide range of views concerning architecture and building. Currently, the series is supported by the Callison Partnership of Seattle and the Eastern Washington Masonry Contractors Association. The series for the past five years included:

List of Public Lectures and Exhibitions Brought to the Program since the Previous Site Visit

Pullman Campus Lectures

2004 Spring
Adam Yarinsky, Architect New York City: Recent Work
Mark Reddington, Architect: Partner LMN Architects Seattle WA: Civic Architecture
Chris Patano, Architect, Seattle WA: Recent Work

2004 Fall
Thomas Strevey, Architect: Recent Work
Tom Kundig FAIA: Partner OSKA Architects Seattle: Recent Work: One Perspective
Junji Kuwabara: Junji Kuwabara Design Works
Roger Williams, FAIA: Roger Williams Design, Seattle WA: Color: Chromatic Physiognomy of Place

2005 Spring
Michael Owen: Associate Professor of Architecture: Teaching Architecture in Honduras
Carlos Jimenez, Architect: Works and Reflections
Mario Como, Civil Engineer Rome, Italy: Statistics of the Coliseum and Reasons for its Structural Damage
David Goldberg, Architect Mithun Architects Seattle WA: Integrated Design towards a Sustainable Future
Mitchell Schwarzer: Zoomscape: Architecture in Motion and Media
Jesse Reiser, Architect New York City: 3 Consequences and their Projects

2005 Fall
Ross Levy, Architect: Situations
Grace Kim & Michael Mariano, Architects Skemata Architects Seattle WA: Danish (co)housing: Traditional and Contemporary Ideas in Housing
Vibeke Grupe Larsen: Sustainability by Design: The Practice of Sustainability in Denmark and Scandinavia
Branko Kolarevic: *Digital Praxis: From Digital to Material*
Max Kirk, Associate Professor of Construction Management: *Why We Need to Know (Fish Hook)*

**2006 Spring**
Sherry Ahrentzen, Architect: *Crafting a Design/Research/Advocacy Center for Affordable Homes*
John Paul Jones FAIA, Jones and Jones Architects and Landscape Architects, Seattle WA: *Stand with us in our Ways and Beliefs*
Christopher Livingston: *1: 1x2*
Karsten Harries, Professor of Architecture University of Pennsylvania: *The Question of Theory*
Leslie Van Duzer: *On Magic and Architecture*
Mark & Peter Anderson, Architects, Seattle WA and Berkeley CA: *Site-Specific Design for Offsite Construction*
David Miller, FAIA & Robert Hull, FAIA: *Miller & Hull Partnership Seattle WA: Recent Works*

**Integrated Education Symposium:**
**January 20, 2006 Symposium**
Richard Hobbs FAIA: Strategy Design, Inc
Bruce Holms Vice President: Skanska USA Building, Inc.
Alec Holser Partner: Opsis Architecture
Greg Knutson: Mortenson Construction
Roger Williams FAIA JIA: Architecture, Design, Photography
Norm Strong FAIA, Partner: The Miller/Hull Partnership
Marc Everson Senior Project Manager: GLY Construction
Eric Brown, President: Brown Contracting
Mike Nichols Senior Project Manager: Opus Northwest L.L.C.

**February 17, 2006 Symposium**
Craig Curtis AIA, Partner: The Miller/Hull Partnership
Wolf Saar AIA, Partner: Weber+ Thompson, PLLC
Randy Cook AIA, Partner: Thomas Cook Fitzgerald Architecture PLLC
Lee Kilcup, President: Gall Landau Young Construction Co.
Marjorie Chang Fuller: Hoffman Construction Company
Lyle Martin: Hoffman Construction Company
Dave Barber Vice President: Dupree Building Specialties, Inc.
Yancy W. Wright, Project Engineer- LEED AP: Sellen Construction
Curt Burks: Vice President – Preconstruction: Skanska USA

**March 24, 2006 Symposium**
Dale Stenning: Hoffman Construction Company
Michael Harder Director of Operations: Mortenson Construction
Darren Seaman, District Engineer: Kiewit Pacific Company
Bruce Blackmer, FAIA: NW Architectural Company
Jeff Fisher: Skanska USA Building, Inc.
Dave Scalzo Senior Vice President: Sellen Construction

**2006 Fall**
Alex Anderson, Associate Professor of Architecture University of Washington: *Cubist Collage/Modernist House*

Don Heil, Professor of Architecture Emeritus: *Is the Historic Preservation Movement Relevant to Contemporary Architecture?*
Lawrence Scarpa, Architect Los Angeles CA: *Ordinary and Extraordinary*
2007 Spring
Alberto Perez-Gomez, Professor, University of Toronto: Built upon Love Work

Wang Hui: Urbane Urbanism by Urbanus

Robert Hutchinson, Architect, Seattle WA:
Steve Reynolds, Architect of the US Army in Northern Italy
David Hewitt, Architect Seattle WA: Architecture Reorganized
Ed Weinstein, FAIA Weinstein Architects Seattle WA, Recent Work
Rena Klein, FAIA Seattle WA: Women in Architecture
Robert Kovalenko, Architect, Seattle WA: Historic Preservation, Restoration and Adaptive Reuse
Grace Kim: Schemata’s Work

Richard Mitchell, Architect: Integrating Sustainability with the Commercial Building Market

Integrated Education Charette March 2, 2007:
Eric Brown, President: Brown Contracting & Development
Randy Cook, AIA, Partner: Thomas Cook Fitzgerald Architecture PLLC
Craig Curtis, AIA, Partner: The Miller/Hull Partnership
Marc Everson, Principal / Director of Estimating: Gallandau Young Construction Co.
David M. Hirzel: Sasaki Associates
Wolf Saar, AIA, Principal: Weber+ Thompson, PLLC
Roger B. Williams, FAIA, JIA: Architecture, Design, Photography

Spring 2007
Dave Hewitt Architects

Weinstein A/U / April 15 - 25
Environmental / Sustainable Exhibit / west part of gallery
Cardboard Furniture

Integrated Studio Projects
Showcase Posters Architecture and CM faculty

Sustainable Symposium (presented by your graduate class) posters in gallery

Exhibitions Pullman
Since 2002

Masonry Competition Third Year Studio (Each year)
Architectural Ideas in Practice: 62 Western Washington practitioners
Third Year Seattle Studio / Seattle Waterfront Study
Graduate Thesis Show
Olsen Sundberg, Architects
Young Austrian Architects
Work by K. Schwarzer,
Buildings of Washington State,
Miller Hull, Architects
NBBJ Architects
Afghanistan Land of Shadow and Light (hung at the WSU Museum of Art),
The Art of Detail.
Eric Cobb, Architect
Spokane Campus

2003
Gerald Weisman, "Unfreezing the Situation: The Role of Research in Design for Dementia",
Joel Loveland, Day Lighting and Electric Lighting in Museums
Grant Jones, ASLA, "Regenerative Landscapes With Buildings That Teach:
David Eisenberg, "Greening the Building Codes"
Bill Davenhall, GIS and Health Care, May 30
Joel Loveland, Director BetterBricks Daylighting Lab, Seattle
Mark Lakeman, City Repair Project, Portland, OR.
Michael Shuman, New Town Builders Collaborative
Laurie Virr, Architect, Canberra, Australia

Exhibitions
Eric Cobb Architecture Exhibition, February
AIA sponsored competition for high school architectural designs

2004
Bill Grubich, KJM, Research Needs and Applications within the Industry
Eileen Jones, Perkins and Will, Chicago, Cultural Implications in Healthcare Design, University of New Mexico Hospitals
Benaymin Schwarz, University of Missouri Color and in Healthcare Environments: What Does the Research Tell Us?
Steve Walther, Ken Murphy, ALSC Architects, Spokane, Spokane Schools Green Initiative
Karl Sonnenberg, Zimmer Gunsul Frasca Partnership, Portland, Transforming Health Care Design
Dr. Joanne M. Westphal, MD and Landscape Architect Michigan State University, E. Lansing, Michigan, Putting 'Therapy' in Therapeutic Site Design: A Historic and Contemporary View of Health in the Built Environment
Kelly Lerner, One World Design, Spokane, "Designing with Natural Materials,"
Michael Shuman, Training Development Corporation, "Indicators of Sustainable Community,"

Exhibitions
AIA Spokane Chapter "Sunset Magazine/AIA Residential Design Awards Program"

2005
Second Annual Design Research focus Week October 17-21.
Dr. Richard Jackson, Creating a Healthy Environment: The Impact of the Built Environment on Public Health
Susan Szenasy, editor in chief Metropolis Magazine,
Cynthia Leibrock, Aging Beautifully: Universal Design Research on Aging
Dina Battisto, Clemson University, An Integrated Design and Research Framework for a Green Community Health Clinic

2006
Third Annual Design Research Conference:
Joanne Savage, Human Nature and the Built Environment
Carol Allen, Health and the Homeless
Academic Advising:
In the School 90-95 3 of our freshman students are advised through the Summer Alive! program prior to the start of the fall term. We have the Assistant Director for Architecture, three faculty and the Academic Coordinator for architecture assigned to advise freshman students. Once students are admitted into the certified program at the second year each student is assigned a faculty member as an advisor. Each faculty will advise between 20 and 25 students. Students maintain the same advisor through the remainder of the program. The only exception to this is when faculty is on sabbatical. Students are then assigned a new faculty advisor. All students must meet with their respective advisor each semester prior to registration and may only register for courses once the advisor releases their advising hold. Students may be advised at anytime through the semester or may meet with the architecture academic coordinator for advising. In Spokane there is an Academic Coordinator and Professor Matt Cohen advise fourth year students. Graduate students are advised through the Spokane Academic Coordinator in conjunction with the Pullman Academic Coordinator and the Graduate Coordinator. In addition, in order to maintain overall standards, but respond fairly and consistently to special problems of students, the Admissions and Academic Affairs Committee of the School reviews all requests for course waivers, substitutions or other program variations.

A significant component of our advising is to impress upon the students that in spite of the large amount of contact they have with advisors, the student is personally responsible for being aware of the requirements of the program and the university and in meeting those requirements. Students are required to maintain their own records and have direct access to their records through the university RONet system.

Personal Advising:
Due to the large amount of contact our academic advisors and staff have with the students, the faculty frequently find themselves being asked for personal advice by students. Although not professionally trained to provide this type of advice, the faculty can advise the student regarding help that is available elsewhere on campus, such as the university counseling service, which is staffed with professionally trained personnel for this purpose.

Career Guidance and Internships:
Since the last visit the school now certifies students in the program at the start of the second year and then all students must apply for graduate admission. Students that are not admitted into the second year are encouraged to meet with the Assistant Director of Architecture or the Academic Coordinator to discuss their options. In some cases students will work to improve their academic record and reapply the following year. For others they will be encouraged to investigate other majors and are assisted in identifying those options. For students that are not admitted they typically they can apply their GER credits towards other majors.
Internship Placement:
As part of the graduate program students are required to participate in a summer course. Students have three options for the summer. The first is an internship with an architectural firm. The second is a foreign studies option (see below), and the third is approved specialized coursework. The vast majority of the students participate in option one. To facilitate this the school provides to the students a list of firms who have agreed to partner with the school on the internship. Students are then required to make contact with the firms of their choice and arrange the internship. Students must document where they will be serving their internship to the graduate coordinator before leaving campus in the spring. Students are assigned a mentor in the firm and are required to follow IDP format. Students are also required to keep a log of their activities. At the end of the summer the mentor and graduate coordinator assign a grade for each student.

In terms of job placement the school facilitates firm visits to campus to interview students. This generally occurs in the fall prior to December graduation for graduate students. The school arranges all of the logistics for the firm and provides space for interviews. Also firms are allowed to post job opportunities on our website. While the school does not have a formal internship process for undergraduates, firms that come to campus often interview these students for summer employment. Students are encouraged from early on that internship is an important part of their education. Undergraduate students can receive a maximum of 4 credits for internship (Arch 480). This work experience is monitored by a school faculty member. This provides additional contact between the employers and the faculty, which gives the School another method of getting feedback from the professions regarding the academic preparation of our students. Also, faculty will often take their studios to Portland and Seattle to have design reviews in the offices. This has often resulted in students receiving internships based upon the work presented in the review.

Study Tours:
The school has formalized required study tours at the third, fourth and graduate level. Each fall semester third and fourth year students go on a five day domestic study tour led by design studio faculty. In addition, we often bring faculty teaching in the technical courses on the tours. Recent visits have included, Boston, New York, Chicago, Los Angeles, Phoenix and Dallas. Students pay a $600.00 course fee which covers the costs of transportation, lodging and sometimes ground transportation. At the graduate level all of our students participate in an international study tour each spring semester. Recent sites include Amsterdam and Barcelona. Plans for 2008 include Berlin and Prague. We also offer summer study programs. Most recently the school offered a six week program in England and France in 2004 and Italy in the summer of 2006. In 2002 we conducted a full semester led by one of our faculty to England which was based in London. We have also had two study tours to China led by Professor Wang. Students can also participate in foreign studies during the spring semester of the fourth year. The school sends students to the DIS Program in Copenhagen each spring as well as other programs in Italy and Australia. The school is cited within the university as a model for other departments for developing off campus programs.

Student Opportunities to Participate In Student Professional Societies, Honors Societies, Etc.

AIAS CHAPTER:
The students have an active AIAS Chapter. During the past year, the chapter had approximately 100 members representing first year through graduate students. In the past, their activities, in addition to regular business meetings, have included sponsoring a construction event using recycled materials, organizing receptions following a guest lecture, organizing field trips to visit firms, organizing a career fair, film series and social events during university events.
such as Moms and Dads Weekend. Also student representatives will help during recruitment activities and meet with potential students. The chapter sends student representatives to Grassroots and AIA Forum for which the school provides funding. The school also has a Builders without Borders chapter and in Spokane students are active in Habitat for Humanity.

The University’s Honors Program:
Approximately 53 of the University first-year students are invited to join the University Honors Program (UHP). Students who accept then complete a different set of General Education Requirements. The UHP at Washington State University is one of the oldest and well-known programs in the nation, which offers highly motivated students an alternative curriculum for general education requirements. Students pursue a broad and comprehensive general program as they specialize in their chosen major. The curriculum is composed of an enriched series of small classes, seminars and independent study options fostering a greater understanding of the natural and social sciences, the arts, language and literature and the historical and philosophical development of the world’s cultures. Students in UHP are given the opportunity to pursue an enriched, often interdisciplinary, course of study designed for self-motivated, active learners. Students must maintain a 3.5 GPA to stay in the program.

Honor Societies:
Qualified students also have access to College and University honor societies including Tao Beta Pi and Mortar Board.

Faculty Development Opportunities
From the time of initial appointment as permanent, tenure-track faculty at the assistant professor level, faculty will normally be considered for tenure and promotion at the end of six years. While all faculties are reviewed each year, particular attention is given to that faculty on tenure track. All tenure track faculty are assigned two faculty mentors. The mentors are required to meet with the faculty a minimum of once each semester to review progress and offer advice and encouragement. All tenure track faculty are reviewed each year through a formal presentation followed by tenured faculty providing written evaluation. The Director then summarized the comments and provides a copy to the faculty member. All tenure-track faculties are subject to an additional formal review, including written evaluation from fellow faculty and Provost at the end of their third year. The Board of Regents grants tenure upon recommendation by the President with input and recommendations from the faculty and the Director of the School, Dean of the College and Provost of the University. Normally, a person will not be granted tenure if their achievements during the same period of time do not warrant promotion. The six-year time period for promotion and tenure may be reduced by mutual agreement if the person’s previous record warrants it. Consideration for tenure and promotion in special cases may occur at different time periods.

With proper qualifications, appointments can be made at the associate professor and the professor rank. Immediate tenure may be granted at the professor rank, but rarely at lower ranks. Criteria for tenure and for promotion to associate professor include: (1) classroom teaching, (2) scholarship creative/professional activity or research, and (3) service to institution, public and profession.

These requirements are described in detail in the School’s Tenure and Promotion Policy. There is no specified period of time between promotion to associate professor and promotion to professor, except it is normally not less than six years. Promotion to professor is based on the same general criteria as for promotion to the associate professor rank, except a much higher level of performance and productivity is expected.
Facilitation of Faculty Research, Scholarship and Creative Activities

See section 3.6 for faculty research support.

The University policy allows faculty to take a professional leave every six years upon approval of the School, College and University. When a faculty member is on professional leave, the School receives no additional positions or funds to cover his/her courses, so this must be accomplished by redistributing the load among existing faculty. A person may request leave for one semester in which case he/she receives full salary during that time, or he/she may request leave for an academic year and receive three-quarter salary for that period.

Faculty Opportunities for Sabbatical and Unpaid Leaves 2002 - 2007

**One semester Sabbatical**
- Paul F. Hazel
- Katherine Keane
- Anna Muting
- Ayah Armani
- Raffia Samizdat
- Ken Carper
- David Wang
- Deborah Ascher Barnstone
- Bashir Kazimee

**One Year Sabbatical**
- Robert Barn stone
- Rafi Samizay

**One year leave without pay:**
- Deborah Ascher Barnstone

Faculty Participation in Professional Meetings and Continuing Education:
The faculty remains current in the profession through diversified activities. Several of the faculty are active as architects working with clients and receiving design commissions. Projects range from single family residences to sororities. Faculty will also work on design competitions as a means of research and developing their own design skills and abilities.

Many of the faculty are very active in ACSA activities, presenting papers both nationally and internationally. One faculty member is currently on the editorial board of the JAE. Over the past six years there have been 5 books published by faculty with another four under review. One of our faculty is internationally known for his work in forensic structures. We have also had a faculty member win a Seattle AIA honor award and a national AIA housing award. In addition we have faculty attending conferences, symposiums and presenting their work at national and international venues.

Over the past several years the school has also sponsored workshops for faculty on software programs such as sketch-up and BIM.
3.8 Physical Resources

Pullman Campus - Carpenter Hall

With the exception of two university classrooms, one lecture hall* and the branch library (Architecture), the space in Carpenter Hall is assigned to the School of Architecture and Construction Management for its programs.

Studio Space:
The first-year studio, second floor north, generally runs four sections during the fall semester and three during the spring semester, so the workstations are shared. For the second through graduate years, the students are provided individual workstations. The fourth year and graduate students have a drawing table and a reference table. All others share a reference table. All studios are approximately 3,000 square feet and each studio has an adjacent seminar space.

Support Space:
The Architecture branch library is located on the ground floor of Carpenter Hall. Non-studio courses are generally held in the university classrooms, lecture hall or studio seminar spaces in Carpenter Hall. Design critiques take place in the studio seminar spaces, the second, third and fourth floor corridors/critique spaces, the ground floor gallery, the first-year studio lecture space and in the studios. The School has a photo studio space for students to photograph their work.

There is a shop in Carpenter Hall for exclusive use by architecture students that has four workstations and is equipped with model building tools. In addition this shop houses a laser cutter and a three axis CNC machine. For larger constructions our students also have access to the College of Engineering and Architecture Shop in the Thermal Fluids Lab across the street from Carpenter Hall. This shop has large wood and metal fabrication equipment. All shops are supervised by university employees and trained TA's.

Carpenter Hall has a "Coffee Cart" on the ground floor that serves soup, sandwiches, pastries and drinks. It acts as a social center for the School's students and brings students, faculty and staff from adjacent buildings into Carpenter Hall. This has increased exposure to the student work exhibited in the ground floor gallery and in the upper floor corridors. The school is in the process of investing funds to establish this space as a college gathering place with new lounge furniture, lighting and other amenities.

There is a slide library on the fifth floor. which is utilized by School faculty and students and faculty and students from other disciplines. We are in the process of digitizing all of our slides and having them available for students to use through our website.

Computing Space:
Two years ago the school established the policy of requiring all students admitted into the second year to purchase laptop computers. We have also received large educational discounts for the Autodesk suite of software as well as Sketchup and CS2. At the beginning of each year students purchase this software through the school. The school provides access to all printers and plotters through web based printing. Each year the students are assessed course fees that range from $15.00 - $25.00 per course. These funds are used for upgrades to software, printers,

* Used primarily but not exclusively for School courses.
plotters, the wood shop and general improvements for the IT infrastructure. With the requirement to purchase computers the school is removing the traditional open computer lab format. Although we maintain some computers in the studio space for third, fourth and graduate students. Currently the school is seeking support to strengthen the signal for the wireless within the building as well as upgrading to CAT 6 cabling.

In terms of equipment and software the students have access to the following in Carpenter Hall:

Resources available to students:

Printing

**Large format printers**
- 2 HP Designjet 5500 UV with photo paper installed
- 4 HP Designjet 500 with bond paper loaded
- 1 HP Deskjet 9800

**Laser jet printers**
- 451
- 551
- 5000 ON

**Color Laserjet**
- 5550 ON
  - Super Coolscan 5000 ED slide scanner

**Scanners**
- Nikon
  - 1 Microtek Scanmaker 9800XL tabloid flatbed scanner
  - 1 Centex Chameleon SX25 Plus 25” sheet feed scanner
  - 1 HP Scanjet 3570C

**Displays**
- 1 42” LCD monitor
- 3 mounted LCD projectors
- 3 LCD projectors for checkout
- 2 include document cameras

**Other**
- Pinnacle video capture system
- Gretagmacbeth color calibration system
- 1 mini DY camcorder
- 1 Canon Powershot 110 digital camera
- 1 set of studio lights

**Administrative Space:**
The administrative spaces are located on the fifth floor of Carpenter Hall. The reception and administrative offices accommodate three staff; the School's Director and the Assistant Director's offices are adjacent to these spaces. There is one large and one small conference room in this area. The large conference room is used for faculty meetings and receptions. The College of Engineering and Architecture, other academic units and the University often use this room for administrative, academic and social functions, which has increased the expose of the School.

The administrative spaces also include a mail/work/copy room, a digital publication room, an
audio-visual storeroom and a flat file storage room. Additional storage is accommodated on the ground floor in Daggy Hall adjacent to Carpenter Hall.

**Offices:**
There are twenty-one office spaces located on the fifth floor of Carpenter Hall.
Spokane Branch Campus - Academic Classroom Building No. 1

Academic Classroom Building No. 1 houses the Interdisciplinary Design Institute which provides approximately 25,000 square feet of space with studio space for 135 students from Architecture, Interior Design, and Landscape Architecture. The recently renovated FO Berg Building houses all of the graduate programs and the Doctor of Design program.

In addition to the studio space, the Institute provides two classrooms, four conference rooms, a design resource room, a product resource room, a slide library, a model woodworking shop, a photo/video lab, a computer simulation room, a 30-station open/teaching computer lab, a GIS computer lab, a gallery, an administrative suite with five staff stations, a director's office and seventeen faculty offices.

Building Plans

Plans for Carpenter Hall on the Pullman Campus and Academic Classroom Building No. 1 and the FO Berg Building on the Spokane Campus follow. Spaces are summarized below.

Carpenter Hall-Pullman Campus

![Carpenter Hall Floor Plan](image-url)
CARPENTER HALL - THIRD FLOOR

49
CARPENTER HALL - FOURTH FLOOR

CARPENTER HALL - FIFTH FLOOR
Academic Classroom Building No. 1-Spokane Branch Campus:
FO Berg Graduate Building
3.9 Information Resources

The Architecture Library is a Branch Library of the Central Library System of Washington State University and is located on the first floor of Carpenter Hall, home of the School of Architecture and Construction Management.

Note: The following section was prepared by Lipi Turner-Rahman, the School's Architecture Library Specialist, in strict accordance with the Appendix B Guidelines for Writing a Library Self-Assessment and C Statistics Report for the NAAB 2004 Conditions for Accreditation.

Context and Institutional Relationship:
The architecture and construction management library is housed within Carpenter Hall on the ground floor. The library is one of eight branch libraries which comprise the university library system. The architecture and construction management library is staffed by university library staff who are assigned permanently to the library. Funding for the library comes out of the central library budget, however the school has funding that comes from alumni donations from which we make special acquisitions. The university Director of libraries, and staff has been very supportive of the school library and the school is included in long range planning discussions and future directions for the library. In addition to all of the printed material the library houses our video collection, copy machine and all reference material. The architecture slide library is housed on the fifth floor of Carpenter Hall. While we move to

needed. This section contains the following information

digital images for our library the need to move this resource to the A

- Library Collections
- Services
- Staff
- Facilities
- Budget/Administration/ Operations
- A-4 Statistics Report on Library Collection Expenditures and Library Staff Expenditures

Collections:
The Architecture Library collection adequately serves the needs of the school. It's location and collection provides ease of access for our students and the library staff are enthusiastic and energetic regarding support for patrons and maintaining a current and broad range of resource materials.

The Librarian and the Architecture Library Specialist / Paraprofessional have input and control over purchasing of resources. Compared to similar peer libraries, we buy relatively few monographs per year. WSU Libraries are striving to increase the purchasing power of our monograph budget as well as our periodical budget. The library supports all requests from faculty for purchases of books and resources. Specific areas of faculty interest are updated regularly as needed.

collection adequately supports the curriculum. We offer a Bachelor of Science and The Master of Architecture Degree and collect library material to support both undergraduate and graduate programs.

The School library is in compliance and exceeds the standard of 5000 volumes required by
the Art Library Society of North America and the Association of Architecture School Librarians.
Our serials collection is searchable through the Art Index, the Architectural Periodicals Index, the Avery Index and various on-line databases. These include Wilson's Art Abstracts, Article First, Proquest Direct and others.

We are trying to improve our serials collection both with current and retrospective issues. We are measuring ourselves against the AASL Core list of Periodicals for a First Degree Program in Architecture. Currently we have 963 of the US journals on this Core List and 813 of the foreign journals on the list.

We have 963 of the titles indexed in the Architectural Index.

**Visual Resources and Non-Book Resources:**
Slides, models and material samples are a separately administered collection which is used by teaching faculty and students. There are not housed in the Architecture Library. The majority of video's and DVD's are housed in the Media Materials and Reserve collection. The Architecture library has a growing special collection of designs DVD's.

Architectural Drawings are housed in Manuscripts, Archives and Special Collections. The emphasis of this collection is architecture of the Pacific Northwest. Electronic databases are available at 10 computer workstations. Regular additions are added to the every growing array of available options.

All of the visual resources and non-book resources are purchased and produced in a timely manner. They are sufficient and readily available to all library patrons.

**Access:**
Standard library practices are followed by the Washington State University Libraries Technical Services faculty and staff.

**Conservation and Preservation:**
The library supports a Preservation Working Group which oversees physical care issues. We also have a professional preservationist/bookbinder on the staff of the main library. Courses in book repair are offered periodically and are available to our staff. The Architecture Library has an annual budget of $1510 for binding and repair.

**Polley Statements:** Does a written collection development policy exist that is regularly used and reviewed? Is the policy appropriate to the program's mission, teaching goals, and curriculum?

Yes, our Collection Development Profile is updated regularly and adjusted to accommodate changes in the program's mission, teaching goals and curriculum. It was last updated in 2004, and will be updated every 3 years.

**Services**
**Reference:**
The staff provides very knowledgeable, personal and professional reference services. Reference questions can be emailed to the Architecture Library at all hours. An adequate reference collection is available for ready reference.
Bibliographic Instruction:
Orientations are provided at the beginning of the semester and upon request by the faculty and students. Instruction in library skills and research methods are offered at the start of every semester in group/class formats and year round on individual basis. Reference guides and leaflets are updated regularly.

Access to Collections:
The architecture library is barrier-free. All course reserve material and reference material is on open shelves, and a large majority reserve materials are available on-line.

Circulation:
Appropriate loan policies are in place as required by the Washington Administrative Code.

Convenience:
The library maintains adequate open hours to serve our patrons sufficiently. The library is open from 8:00 a.m. – 10:00 p.m. Monday – Thursday and 8:00 – 5:00 p.m. on Friday. The library is also open during weekends.

Current Awareness:
New book lists are emailed monthly to faculty, students and other library patrons. A bulletin board displays covers of new books and media resources prominently at the library entrance. Other bulletin boards display articles of interest from print and electronic media. A "This Week in Architecture" board displays significant events in design and architecture for the week. Other bulletin boards display the syllabi for all departmental classes and future employment postings. In addition, books and articles pertinent to invited guest speakers are displayed concurrent with their presentation.

Cooperative Agreements:
Washington State University is a member of the SUMMIT Alliance borrowing consortia. It is comprised of 33 Community colleges, colleges, and universities across Oregon and Washington. It provides access to over 28 million holdings. It is an unmediated service, which is available from any computer. Standard inter-library loan continues to be available. On-site and desk-top delivery makes these services work in an effective and timely manner.

Staff Structure:
The Architecture Library Specialist/Paraprofessional reports to the Head of Access Services at WSU Libraries. Outside the reporting structure, the Architecture Library Specialist interacts collegially with the Manager of Reference Services and Microforms for Holland and Terrell Libraries, who is also the Architecture, Interior Design and Film Studies Subject Specialist.

The Architecture Library Specialist/Paraprofessional maintains liaison and consults with the Architecture Faculty on a daily basis. The Architecture Library Specialist/Paraprofessional and the Manager of Reference Services and Microforms for Holland and Terrell Libraries are available to meet with an ad-hoc Architecture Library Committee in the School of Architecture and Construction Management as needed.

Numbers:
The Architecture Library runs smoothly with the current level of staffing. In addition to the two full time staff the library also supports students to work in the library during evening and weekend hours.
Professional Status:
The Architecture Library Specialist/Paraprofessional have undergraduate degrees in Microbiology and Anthropology and are currently working on a PhD in Anthropology. She is currently ABD. The Architecture Library Specialist/Paraprofessional has over 17 years experience in the Libraries and has been managing the Architecture and Construction Management Library for 4 years.

The Architecture Library Lead Paraprofessional has an undergraduate degree in Art and over 24 years experience in Libraries. She has provided lead capabilities in the Architecture and Construction Management Library forever 12 years.

The Manager of Reference Services and Microforms for Holland and Terrell Libraries, with signatory authority over Architecture acquisitions, possesses an MLS, and over 20 years experience in the profession. There are written job descriptions for all of these positions.

Support Staff:
We have sufficient staffing, including 10-12 student workers, many of whom are architecture and Construction Management students. Job descriptions are available for students.

One technical support staff member is in the Architecture Library. There is a written job description for this position. The current staff member in this position has been at the Architecture Library for 12 years and has worked in university libraries for over 24 years.

Professional Development:
Staff is encouraged to attend professional development opportunities both on campus and at regional workshops.

Salaries
Salaries are in accordance with Washington State Employees Classification Criteria.

Facilities
Space:
Carpenter Hall's remodel in the 1990's allocated a generous space on the first floor for the Architecture Library. It is generally spoken of as the nicest library on campus with its airy, carpeted quiet study atmosphere.

Remote storage is provided in the main campus library about two blocks away, and requests can be submitted electronically by the patron, with on-site delivery the following day.

Equipment:
Equipment includes one photocopier, a microfiche reader, and 3 slide viewer units, 7 public computer workstations, a multimedia work station, a DVD / Video/TV combo and a video player.

Furnishings:
Furnishings include study spaces and open soft seating.

Security:
A safety and emergency orientation is required for each employee.
Budget/Administration/Operations

Funds:
There is state funding, endowment funding, and gift funding from individuals. Private funds can be used to augment the regular collection which is provided from the state funding. The library endowment which is held in the school yields about $1,000 per year.

Evidence of Planning:
A collection development profile from Blackwell North American is used as a guideline for purchasing books. The Core List of Periodicals from the Association of Architecture School Librarians is used as a guideline for adding new serial titles.

Intra-Institutional Relationships:
Electronic enhancements enable good communications and easy requests for books both on and off this campus. On-site delivery is effective and timely.

Efficiency of Operations and Services:
The library operates in a very smooth and efficient manner and is focused on patron service.

Participation of Faculty and Students:
The Library Committee meets as needed: to allocate gift funds; to review the Collection Development Profile and, to discuss relevant matters as needed.
3.10 Financial Resources

Program Budget

Funding for the school comes from several sources the first is through state supported funds. These include salaries and operations (000 l). Operations fund all support and infrastructure for the school including copying, phone, faculty and staff computers and professional development for faculty and staff. The third source of funding is through development funds (17A). Development funds come from donations and endowments. These funds are used for specific purposes as directed by the donor. The school does have the Weller Excellence fund which is discretionary to support special school activities. This account has grown from less than $1,000 in 2001 to over $60,000. Another source is our student course fees. These fees are used to purchase software and replace equipment and pay for TA’s. Student fees are used for technology, shop and study tours.

The following is a summary of budget allocations since FY 03

<table>
<thead>
<tr>
<th></th>
<th>FY 03</th>
<th>FY 04</th>
<th>FY 05</th>
<th>FY 06</th>
<th>FY 07</th>
<th>FY 08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>1,382,731</td>
<td>1,410,861</td>
<td>1,476,224</td>
<td>1,491,360</td>
<td>1,593,085</td>
<td>1,791,769</td>
</tr>
<tr>
<td>Operations</td>
<td>71,994</td>
<td>62,186</td>
<td>(6,496)</td>
<td>(20,772)</td>
<td>4,536</td>
<td>147,074</td>
</tr>
<tr>
<td>Total PBL Allocation</td>
<td>1,454,725</td>
<td>1,473,047</td>
<td>1,469,728</td>
<td>1,470,588</td>
<td>1,597,621</td>
<td>1,811,812</td>
</tr>
<tr>
<td>17A revenue</td>
<td>146,392</td>
<td>210,796</td>
<td>206,667</td>
<td>215,013</td>
<td>226,826</td>
<td></td>
</tr>
</tbody>
</table>

Endowments

The school (Arch +CM) has 21 endowments that cover scholarships, lecture series and library. Over the past six years the architecture program has acquired four new endowments. (Minimum amount to establish and endowment is $25,000). In addition the school in 2006 – 2007 received an additional $25,000 for scholarships on an annual giving basis. Contributions in 2007 to the Weller Architecture excellence fund exceeded $40,000.

Scholarships

The architecture program has eighteen scholarships including endowments and annual gifts for architecture students. Scholarship funds are also taken from the Weller excellence fund to support scholarships. In the spring of 2007 the school awarded approximately $40,000 in undergraduate scholarships and $26,000 in graduate architecture scholarships. The scholarships range in amounts from $500 to $3,000.00.

The following outlines total scholarship allocations for the school starting from fiscal year 2003.

<table>
<thead>
<tr>
<th></th>
<th>Arch</th>
<th>CM</th>
<th>Total Exp Amt</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY03</td>
<td>$21,333.00</td>
<td>$ 9,695.00</td>
<td>$ 31,028.00</td>
</tr>
<tr>
<td>FY04</td>
<td>$22,150.00</td>
<td>$ 12,200.00</td>
<td>$ 34,350.00</td>
</tr>
<tr>
<td>FY05</td>
<td>$26,020.00</td>
<td>$ 23,180.00</td>
<td>$ 49,200.00</td>
</tr>
<tr>
<td>FY06</td>
<td>$25,450.00</td>
<td>$ 9,700.00</td>
<td>$ 35,150.00</td>
</tr>
<tr>
<td>FY07</td>
<td>$45,625.00</td>
<td>$19,335.00</td>
<td>$ 64,960.00</td>
</tr>
</tbody>
</table>
Development
The school has placed heavy emphasis on development activities over the last five years. Priorities include scholarships funds for graduate students, support for students study tours and undergraduate scholarships. The following is a summary of the development activities for the school.

- Total funds generated over the last five years are approximately $1,200,000. This total is over $2,200,000 including planned giving pledges.
- Generated $420,000 in support of school scholarships. This includes special scholarships for graduate students. A total of $26,400 distributed for spring semester 2007 for graduate students. Scholarship funds distributed for all students in spring of 2007 was $64,960.
- Goal for 2007-2008 is to provide $40,000 in scholarships funds for graduate students.
- Generated $468,000 in development funds in support of special students projects.
- Generated four new endowments for scholarships, special projects and off campus study.
- Solicited $250,000 from industry to support new three year faculty position in construction management. Current campaign to generate $500,000 over five years is 753 complete.
- Generated $100,000 in contributions and gifts in kind to support the school competition in the National Solar Decathlon project. Generated new endowment from masonry industry in support of annual design competition and distinguished lecturer position.

Funds will provide in excess of $1,000,000.

- Negotiated planned giving agreement with donor that stipulates the School as beneficiary.

Comparative Data Relative to Other Professional Programs
The following statistics prepared by the WSU Office of Institutional Research compares State-funded Instructional Expenditures per undergraduate and graduate FTE's per academic department for fiscal year 2000.

- Architecture ................................................................................................................. $7,441
- Landscape Architecture (also includes Horticulture) ........................................ $13,845
- Interior Design............................................................................................................. $5,838
- Civil Engineering (also includes Environmental Engineering) ............................... $10,886
- Mechanical Engineering .......................................................................................... $9,055
- Electrical Engineering (also includes Computer Science) ...................................... $13,585
3.11 Administrative Structure

Institutional Accreditation:
Washington State University is accredited by the Commission on Colleges of the Northwest Association of Schools and Colleges, the regional accrediting association. The institution is a member of the National University Continuing Education Association and is listed in the official publications of the U.S. Office of Education and the State Department of Public Instruction.

Washington State University is the land-grant University of the State. The main campus is in Pullman with branch campuses in Spokane, the Tri-Cities and Vancouver. The University is governed by a Board of Regents appointed by the Governor. The chief executive officer is President Elson Floyd; Dr. Robert Bates is the Executive Vice President and Provost.

Administrative Structure:
The School of Architecture and Construction Management is a unit within the College of Engineering and Architecture. Other units within the College include the Department of Chemical and Biological Engineering, Department of Civil and Environmental Engineering, Department of Biological Systems Engineering, the School of Electrical Engineering and Computer Science, the School of Mechanical and Materials Engineering, Center for Multiphase Environmental Research, Wood Engineering Laboratory, and Center for Materials Research, and Engineering Management.

The Dean of the College of Engineering and Architecture is Dr. Candis Claiborn and the Director of the School of Architecture and Construction Management is Gregory A. Kessler. At WSU, a director of a school has the same privileges and responsibilities as a chair of a department, except that he/she manages more than one program, in our case, architecture and construction management. His/her duties as defined in the Faculty Manual are as follows:

Subject to the approval of the Dean of the college, a department chair or school director is responsible for organizing and supervising the courses of instruction offered by the department, distributing the teaching and research load, caring for the equipment and facilities assigned to or in the custody of the department, allocating and supervising department funds.

When a department or school has teaching and/or research programs at sites remote from the location of the headquarters of the department or school, some of the responsibilities rest with or are shared with the Campus Dean or Director of the remote station. Such shared responsibilities include care for equipment and facilities, supervision of funds, and day-to-day supervision of teaching and research activities.

The department Chair makes recommendations to the Dean for appointments, promotions, and salaries of members of the department, and transacts official department business with Deans, other administrators, and students. In the case of faculty at remote units, the department Chair shares information and coordinates recommendations with the Campus Dean or Director.

A department Chair is expected to provide leadership in the formation of departmental policies and to hold meetings with all available members of the faculty on matters of policy. Except as
limited by applicable general regulations and policies or as otherwise directed by the Dean or by the Provost and Academic Vice President, it is the department Chair's responsibility to execute the policies determined by this procedure. When this is not done, he or she should notify the administrative superior and the members of the faculty of the action being taken and the reasons therefore. However, department Chairs must have sufficient latitude to permit the making and the execution of day-to-day operating decisions and the exercise of leadership responsibilities.

A director or department chair is appointed by the Dean after considering the preferences indicated by the faculty of the unit. The term of the appointment is normally four years.

Administration

The administration of the School consists of the following individuals.

- Director
- Assistant Director for Architecture
- Assistant Director for Construction Management
- Graduate program Coordinator

In addition the school has six staff including an Office Manager, Two Academic Coordinators, Information Systems Manager, Information Systems Coordinator and a clerical person.

The director's role and responsibilities are defined in the Faculty Manual. Accordingly, the director provides leadership and management in logistical support, curriculum development, instructional assignment, monitoring of facilities and equipment, budgeting, external development support, alumni relations and representing the School to the College, University, community and profession. The director seeks advice and input from the faculty in various situations through individual contributions, the School's committee system, and the faculty meetings. The director will articulate to the faculty, College, University, profession, community, strive for their fulfillment through an efficient, pragmatic and yet comprehensive and students' missions and goals of the School of Architecture and Construction Management and democratic decision-making process.

The Assistant Director for Architecture responsibilities are defined as follows:

- Serves as assistant to the Director of the School.
- In the absence of the director, the Assistant Director represents the School to the University, students and profession in attending meetings, signing papers and other responsibilities as deemed necessary by the director.
- Coordinates undergraduate architecture program; chairs meetings of the design level coordinators. Chairs Academic Affairs Committee.
- Coordinates student advising.
- Helps in preparation of accreditation documents.
- Coordinates in recruitment of undergraduate architecture students.
- Overall implementation of all aspects of the undergraduate program.

Graduate Program Coordinator:

- Advises the Director on matters related to the Graduate Program.
- Works with the director in long term planning.
- Heads the School's Graduate Committee.
- Functions as a liaison between the director and Graduate School.
- Coordinates student admission process, thesis reviews in conjunction with the Graduate Committee and the Graduate School.
- Helps on scheduling of graduate courses.
- Helps on publicity material for the Graduate Program.
- Coordinate graduate internship program.
- Coordinates graduate study tour.
- Other responsibilities as established by the director.

Staff
Since the last visit the school staff has been completely reorganized. The office manager is responsible for overseeing the overall management of the office including budget, staff assignments, director's correspondence and coordinating all of the daily activities. The office manager is responsible for maintaining strict confidentiality of school personnel issues.

The two Academic Coordinators are responsible for coordinating all of the advising issues for each discipline. They work on a daily basis with students regarding admission to the program, resolving scheduling conflicts and ensuring that our policies are aligned with changes in university policy. They are also responsible for helping with all of our recruiting in the school meeting with potential students and their families.

Our two information support staff are responsible for maintaining and implementing all of our technology within the school. In addition the information systems manager works closely with the director to develop long range planning and strategies for new technologies that need to be implemented in the school. They also support faculty in the teaching of computer courses, coordinate computer activities and maintenance, coordinate intercampus networking and also telecommunications and networking systems.

Programs Offered:
The professional architecture program at Washington State University is a five and one half year plus summer program leading to the Master of Architecture (M. Arch) degree. We also have implemented a 2.5 year sequence for transfer students or students that require further development of their skills. The 1 year program requires a minimum of 164 semester credits to complete (124 undergraduate credits). Over the last two years students graduating from the Master of Architecture program have graduated with an average of 185 total credit hours. The school is currently evaluating the MArch curriculum in order to reassess the credit offerings and reach the NAAB minimum.

With the exception of the General Education Requirements and elective options and a Fine Arts elective, all credits are taken within the School of Architecture and Construction Management. One cohort of undergraduate fourth year students are located at the Spokane campus and one cohort of 1.5 and 2.5 year students are also in Spokane.

The School also offers the following degree programs:

- Bachelor of Science in Architectural Studies
- Bachelor of Science in Construction Management
- Master of Science in Architecture (Spokane Campus)
- Doctor of Design (Spokane Campus only)

Bachelor of Science in Architectural studies is a four-year degree program. This degree is obtained by students in the Master of Architecture program prior to being accepted into the graduate program. Transfer students entering into the Master of Architecture program must
either have a Bachelor of Architecture, Bachelor of Science in Architecture or Bachelor of Arts in Architecture.

The Bachelor of Science in Construction Management is a four-year degree program that prepares students for a career in the construction profession. This degree program is accredited by the American Council for Construction Education (ACCE). A number of courses such as Graphic Communications, Materials and Construction, Environmental Controls, and Structures serve both programs. Also the school has embarked upon a proactive program in integrated education that unites students in both disciplines in special courses and symposiums (see appendix). Students who wish to double major in architecture and construction management, will generally be able to do so with an extra year of academic work. Construction Management courses such as Estimating, Construction Management Process, and Scheduling are available to architecture majors as Architectural Emphasis Electives. We also have a minor in construction management available to architecture students. We are able to bring 5 – 7 into this minor each year. While there is a greater demand for this option the limitation is due to faculty resources.

The Master of Science in Architecture degree is a post-professional degree program located at the Spokane campus. The students are expected to have previously completed a professional accredited degree program in architecture. This graduate program offers three areas of emphasis related to design: culture, technology and environment. Some of the graduate students have the opportunity to assist in teaching undergraduate courses, at the Spokane campus. In addition the Spokane campus has begun offering a new Doctor of Design program and will have an enrollment of five – seven students starting in the fall semester of 2007.
3.12 Professional Degrees and Curriculum
The five and one half Master of Architecture degree is structured into three segments. The first is a year of pre-architecture (open to all freshman and transfer students who are accepted to WSU). The second is three years of certified architecture and university GER coursework leading to a Bachelor of Science in Architecture. The third segment is the one and one half graduate program leading to the accredited Master of Architecture.

All students from WSU who maintain in academic good standing complete the four year degree prior admission into the MArch program.

Bachelor of Science in Architecture Degree Requirements and Electives:
To obtain a Bachelor of Science in Architecture degree, a student must complete a minimum of 124 semester credit hours. These hours fall into three categories:

- General Education Requirements
- Architecture Requirements
- Electives

General Education Requirements
WSU's General Education requirements are designed to complement and support students' courses of study in the major field or career area. They are also aimed at values apart from the career: realizing potentials in the individual, preparation for membership in one's community, and citizenship. WSU faculty has identified the following criteria as critical requirements:

- Reason critically;
- Conduct self-directed or independent learning projects.
- Understand the roles of normative views and values, including ethics and aesthetics;
- Communicate conclusions, interpretations, and implications clearly, concisely and effectively, both orally and in writing;
- Acquire and assimilate knowledge in a variety of modes and contexts and recognize the diverse disciplinary viewpoints and methods;
- Understand the historical development of human knowledge and cultures, including both Western and non-Western civilizations.

These six goals represent in abbreviated form the University's definition of an educated person. Given anticipated career changes which may occur over a lifetime, WSU aims at graduating "life-long learners": people capable of adapting to new situations as they arise because they understand how information is gathered and organized and how knowledge is constructed in more than one specialty area.

For that reason, students are required to devote approximately a third of their coursework to subjects and disciplines outside their majors. The distribution or "breadth" requirements represent the main scholarly disciplines in which knowledge is organized. WSU's General Education Program is also organized vertically, allowing sequential study in some depth from the freshman year to the junior or senior year. Distribution requirements in the Arts and Humanities, Social Sciences and Sciences, etc. are organized in three tiers, indicating in broad terms the academic level of the courses and the order in which they should be taken. After completing the lower-division requirements, students select an upper-division "Tier III" course which is intended to assist integration of knowledge from various knowledge domains and to permit advanced study and
research outside the major. Writing instruction and writing experiences are integrated in course work throughout the three tiers.

Students are required to take a minimum of 40 credit hours distributed among the categories listed below. Most architecture students take 45 – 50 credits in non architecture courses in order to prepare for courses such as calculus.

<table>
<thead>
<tr>
<th>Tier I: 15 semester credit hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>World Civilizations [AJ GenEd 110 and 111]</td>
<td>6</td>
</tr>
<tr>
<td>Written Communications [WJ]</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics Proficiency [NJ]</td>
<td>3</td>
</tr>
<tr>
<td>Sciences [QJ]</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tier II: 22 semester credit hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Proficiency [WJ, [CJ]</td>
<td>3</td>
</tr>
<tr>
<td>Arts and Humanities [HJ, [GJ]</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences [SJ, [KJ]</td>
<td>3</td>
</tr>
<tr>
<td>Arts and Humanities/Social Sciences [HJ, [GJ, [SJ, [KJ]</td>
<td>3</td>
</tr>
<tr>
<td>Intercultural Studies [I], [G], [K]</td>
<td>3</td>
</tr>
<tr>
<td>Sciences2 [B], [P]</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tier III: 3 semester credit hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier III Course</td>
<td>3</td>
</tr>
<tr>
<td>American Diversity course [D]</td>
<td>3</td>
</tr>
<tr>
<td>Total hours</td>
<td>40</td>
</tr>
</tbody>
</table>

1A total of 9 hours of Arts and Humanities and Social Sciences with a minimum of 3 in either.

2At least 3 hours in Biological Science and 3 hours in Physical Science plus 1 additional hour for three clock hours per week of laboratory.

3To complete the General Education Requirements; students must choose one course that is also designated as an American Diversity [D] course. This course adds no credit hours to the General Education Requirements as American Diversity courses also fulfill GER requirements in another area.

Successful performance of a University Writing Portfolio is also a requirement for graduation at WSU. Students may satisfy this requirement, which involves submitting three papers from previously assigned class work plus two timed and proctored writing exercises, any time after successfully completing Engl 101 (or equivalent). Further, two courses identified as writing in the major [M] must be included in work taken from designated architecture courses to fulfill the

Architecture Requirements Bachelor of Science in Architectural Studies

<table>
<thead>
<tr>
<th>Introduction to the Built Environment Arch 202</th>
<th>3 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arch 103 (Visual Design)</td>
<td></td>
</tr>
<tr>
<td>Graphic Communication Arch 101</td>
<td>3 Credits</td>
</tr>
<tr>
<td>Design Studio Arch 101</td>
<td>4 Credits</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arch 201 (Studio I)</th>
<th>4 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arch 203 (Studio 2)</td>
<td>5 Credits</td>
</tr>
<tr>
<td>Arch 301 (Studio 3)</td>
<td>5 Credits</td>
</tr>
<tr>
<td>Arch 303 (Studio 4)</td>
<td>5 Credits</td>
</tr>
<tr>
<td>Arch 401 (Studio 5)</td>
<td>5 Credits</td>
</tr>
</tbody>
</table>
Arch 403 (Studio 6) 5 Credits

**Total Credit Hours** 37 Credits

**Theory**
- Arch 209 Theory I
- Arch 309 Modern Theory 3 Credits
- Arch 409 Urban Theory 3 Credits

**Total Credit Hours** 9 Credits

**History**
- Arch 220 Ancient History 3 Credits
- Arch 324 [M] Ren-19th Century 3 Credits

**Total Credit Hours** 6 Credits

**Technology**
- Arch 330 (Mat's/Const. I) 3 Credits
- Arch 351 (Structures I) 3 Credits
- Arch 352 (Structures II) 3 Credits
- Arch 353 (Structures Studio I) 1 Credit
- Arch 354 (Structures Studio II) 1 Credit
- Arch 432 (Env. Controls I) 3 Credits
- Arch 433 (Env. Controls II) 3 Credits
- Arch 472 (Codes and Acoustics) 2 Credits

**Total Credit Hours** 19 Credits

**Total Architecture Credits** 71 Credits

**Electives**
Architectural Emphasis Elective Requirements
8 Credit Hours Minimum Required. Students select approved courses available in the area of design-communication, technology or theory. Students are also required to take three credits of fine arts electives that may also serve as a GER requirement.

**Architecture Curriculum**
The following breaks down the curriculum of the first four years leading to the Bachelor of Science in Architectural Studies.

<table>
<thead>
<tr>
<th>FIRST YEAR-Pre-Architecture Program</th>
<th>Crs</th>
<th>Spring Semester</th>
<th>Crs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arch 101 Graphic Communications I</td>
<td>3</td>
<td>Arch 103 Visual Design</td>
<td>3</td>
</tr>
<tr>
<td>Engl 101 or Communications Proficiency fWI</td>
<td>3</td>
<td>Arch 202 The Built Environment</td>
<td>3</td>
</tr>
<tr>
<td>Gened 110 or III-Wor1d Civilizations fAI</td>
<td>3</td>
<td>Gened 110 or III-Wor1d Civilization fAI</td>
<td>3</td>
</tr>
<tr>
<td>GERs</td>
<td>6/8</td>
<td>GER or FA Elective IIJ</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15-17</td>
<td>Calculus fNior Physics fPJt2J</td>
<td>3-4</td>
</tr>
</tbody>
</table>

Arch 101 Graphic Communication. Lecture and studio course to develop visual awareness: sketching, drafting, rendering, shades and shadows and design processes.

Arch 103 Visual Design. Two and three-dimensional abstract design theory, color theory and introduction to architectural design processes.

Arch 202 The Built Environment. Design and planning of the built environment from products to regions. Environmental interactions, sustainability and quality.
Second-Year Professional Program:
Upon completion of the pre-professional requirements and in addition to the University's General Education Requirements, students are then certified into the second year. The following courses are taken during the Second Year. Sixty-six-five (60-65) students are admitted into the second-year program based upon grade point average and completion of the required first-year courses.

**Second-year Certified Program**

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>CRS.</th>
<th>SPRING SEMESTER</th>
<th>CRS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arch 201 Architectural Design I</td>
<td>4</td>
<td>Arch 203-Architectural Design II</td>
<td>3</td>
</tr>
<tr>
<td>Arch 220-Ancient Arch History</td>
<td>3</td>
<td>Arch 324 Renaissance – 19th century Arch history</td>
<td>3</td>
</tr>
<tr>
<td>Arch 330-Materials/Construction I</td>
<td>2</td>
<td>Physical Science Elective</td>
<td>3-4</td>
</tr>
<tr>
<td>Phys 101 or 201 or Math 206 or 171</td>
<td>3-4</td>
<td>GERs</td>
<td>6-8</td>
</tr>
<tr>
<td>GER or Fine Arts</td>
<td>3-4</td>
<td>Total</td>
<td>15-18</td>
</tr>
</tbody>
</table>

Arch 201 Architectural Design I. Introduction to architecture focusing on composition and ordering systems.
Arch 220 Architectural History. Pre-history and late medieval.
Arch 203 Architectural Design II. Introduction to architectural design focusing on building technology, systems and craft.

**Third-Year Certified Program**

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>HRS.</th>
<th>SPRING SEMESTER</th>
<th>HRS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arch 301-Architectural Design III</td>
<td>5</td>
<td>Arch 303-Architectural Design IV</td>
<td>5</td>
</tr>
<tr>
<td>Arch 324-Renaissance to 19th Century Arch.</td>
<td>3</td>
<td>Arch 309-Modern Architectural Theory</td>
<td>3</td>
</tr>
<tr>
<td>Arch 351-Architectural Structures I</td>
<td>3</td>
<td>Arch 352-Architectural Structures II</td>
<td>3</td>
</tr>
<tr>
<td>Arch 353-Structures Studio I</td>
<td>1</td>
<td>Arch 354-Structures Studio II</td>
<td>1</td>
</tr>
<tr>
<td>Arch 432-Environmental Controls I</td>
<td>3</td>
<td>Arch 433-Environmental Controls II</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

Arch 301 Architectural Design III. Introduction of architectural design focusing on materiality and context.
Arch 324 Architectural History [M]. Western architecture from the Renaissance to Baroque to pioneers of modern architecture.
Arch 351 Architectural Structures I. Introduction to statics, dynamics, analysis and design of structures using timber, steel and concrete systems.
Arch 353 Structures Studio I. Design principles of architectural systems for spanning and enclosing architectural space.
Arch 432  Environmental Controls I. Mechanical systems for buildings: HVAC, heat flow concepts.
Arch 303  Architectural Design IV. Continuation of study of architectural design as influenced by cultural, spiritual and symbolic issues.
Arch 309  Design Theory IV. Evolution of modern architecture, ideals and principles.
Arch 352  Architectural Structures II. Continuation of Arch 351.
Arch 354  Structures Studio II. Continuation of Arch 353.
Arch 433  Environmental Controls II. Water supply, drainage, electrical and lighting systems for buildings.

Fourth Year Certified Program:

<table>
<thead>
<tr>
<th>FOURTH YEAR</th>
<th>Fall Semester</th>
<th>Hrs</th>
<th>SprinQ Semester</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arch 401-Architectural Desian V</td>
<td>5</td>
<td>Arch 403-Architectural Desion VI</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Arch 409-Urban Design Theory</td>
<td>3</td>
<td>Architectural Emphasis Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Arch 472 Codes &amp; Acoustics</td>
<td>1</td>
<td>GER (Tier III)</td>
<td>3-6</td>
<td></td>
</tr>
<tr>
<td>Architectural Emphasis Electives</td>
<td>6</td>
<td>Study abroad option</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>Total</td>
<td>12 - 14</td>
<td></td>
</tr>
</tbody>
</table>

Arch 401  Architectural Design V. Advanced architectural design focusing on technology, systems and crafts of buildings.
Arch 472 Codes & Acoustics. International building codes, safety and accessibility. Sound theory, control and reinforcement systems as applied to architectural problems.
Arch 403  Architectural Design VI. Advanced study of architectural design as influenced by social and environmental issues.
Arch 409  Design Theory VI. Advanced design theory relating to social and environmental issues, which influence housing design.

Architectural Emphasis Electives:
Students may select from the following list of approved Architectural Emphasis Electives.
Arch 425  Architectural Theory I. Architectural criticism and evaluation as viewed from contemporary and historic precedents.
Arch 428  Architecture and Culture in the Islamic World. A thematic course exploring the relationship between architecture and culture in the context of Islamic civilization.
Arch 436  Contemporary Furniture Design. Investigation of issues related to the design and fabrication of furniture.
Arch 439  Lighting Design. Engineering and aesthetics of lighting design.
Arch 442  Theory of Urban Design and Development [M]. History, principles and theories of the physical design and development of cities.
Arch 446  Architectural Animation. Introduction to computer animation production, simulation and related CAD modeling techniques.
Arch 451  Computer-Aided Design I. Art and science of CAD.
Arch 452  Computer-Aided Design II Continuation of Arch 451.
Arch 456  Field Sketching/Journal Keeping. Strategies to facilitate investigation and comprehension of the environment.
Arch 462  Architectural Structures IV. Deflection Theory, statically indeterminate structure systems.
Arch 480  Architecture Internship. Placement in approved industrial, professional or governmental situation.
Arch 530  Research Methods. (Spokane to Pullman via Whets) Research methods in architecture and design disciplines.
Arch 540  History and Theory of Design Issues in Architecture. (Spokane to Pullman via Whets) Advanced study of history and theory of architecture relating to environmental, cultural and technological design issues.
Arch 577  Theory of Urban Constructions. Overview of forces and systems that have shaped the urban environment through human development.
CstM 455  Construction Scheduling. Construction communications and law overview.

Master of Architecture curriculum: (Pullman and Spokane)

<table>
<thead>
<tr>
<th>MArch progr am</th>
<th>Fall Semester #1</th>
<th>Crs</th>
<th>Spring Semester #2</th>
<th>Crs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arch 515</td>
<td>Research Methods</td>
<td>3</td>
<td>Arch 511</td>
<td>6</td>
</tr>
<tr>
<td>Architecture 573</td>
<td>Ethics and Practice.</td>
<td>3</td>
<td>Architecture 525</td>
<td>3</td>
</tr>
<tr>
<td>(Partial collaborative course with CSTM 451 Delivery Methods)</td>
<td></td>
<td></td>
<td>(Spokane to Pullman via Whets)</td>
<td></td>
</tr>
<tr>
<td>Architecture 563</td>
<td>Structures III</td>
<td>3</td>
<td>Architecture 527</td>
<td>3</td>
</tr>
<tr>
<td>Architecture 531</td>
<td>Advanced Tectonics</td>
<td>3</td>
<td>Site and Landscape Design</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td></td>
<td>Total</td>
<td>12</td>
</tr>
<tr>
<td>Summer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Arch 580  Internship

<table>
<thead>
<tr>
<th>Fall Semester #3</th>
<th>Crs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arch 513</td>
<td>6</td>
</tr>
<tr>
<td>Architecture 542</td>
<td>3</td>
</tr>
<tr>
<td>Approved Elective</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
</tr>
</tbody>
</table>

Arch 511  Architectural Design VII. Comprehensive building design incorporating programming, space planning, interiors, site planning and landscaping.
Arch 515  Programming/Decision Theory. Data collection, analysis and synthesis, including cost management, organization, preparation and presentation of a program.
Arch 513  Design Thesis. In-depth architectural study of project selected by student and approved by faculty.
Arch 531  Advanced Tectonics.
Arch 573  Professional Practice. Architect licensing process; techniques for and rationale of marketing architectural services; office organization and business methods.
Arch 580  Internship
3. 13 Student Performance Criteria

3.13.1 – 3.13.34
3.13 Student Performance Criteria

The CRITERIA/ COURSE MATRIX included in this section indicates the criteria that are addressed in each of the required and elective courses in the curriculum. It also indicates the level to which each criteria is addressed by each course utilizing the NAAB levels of accomplishment Understanding and Ability.

**Understanding**: assimilation and comprehension of information without necessarily being able to relate it to other material or see its fullest implications.

**Ability**: skill in using specific information to accomplish a task, in correctly selecting the appropriate information, and in applying it to the solution of a specific problem.

The following is a descriptive narrative of how the program at the School of Architecture and Construction Management at Washington State University addresses each of the 34 performance criteria identified by NAAB.

3.13.1 Speaking and Writing Skills

*Ability to read, write, listen and speak effectively*

Required Courses:
The first exposure to Verbal and Writing Skills is received in the General Education Requirements in English and Communication on entering the University. Students must take a minimum of six credit hours to fulfill GER's. Also students must submit and pass their writing portfolio prior to graduation. Students may satisfy this requirement, which involves submitting three papers from previously assigned class work plus two timed and proctored writing exercises, any time after successfully completing Engl. 101 or equivalent. Students must complete the portfolio no later than the end of the first semester of upper-division standing (upon completion of 60 hours). Faculty from across the university is responsible for evaluating the portfolios.

Each student in the school is required to take a minimum of two M courses (writing in the major) prior to graduation. The M courses in the school emphasize writing, research, comprehension and listening skills. The following serve as M courses for the school.

- Architecture 309 Modern History (Required, in process)
- Architecture 324 Renaissance to 1900 History of Architecture (Required)
- Architecture 409 Design Theory III (Required)
- Architecture 425 Architectural Theory I (Elective)
- Architecture 442 Urban Design (Elective)

Additionally, extensive writing, reading, listening and comprehension occur in the graduate program. The courses Architecture 515, 525, 527, 531, 542 and 573 all require demonstrated ability in the above. All of these courses in addition to design studios require students to present their work and findings in an oral format. In the instance of Architecture 525 in the spring of 07 all students were required to present their work to all second year students in the school in a symposium format. In the design studios beginning at second year we have implemented a required reading component to each studio beyond the normal requirements for research into the project problem. Each semester faculty are required to define specific reading assignments for the semester. It is through studio seminars and short papers students are tested regarding their comprehension of the readings.
Elective Courses:
In addition to the M elective courses the following elective courses also address speaking and writing skills. Arch 437 Energy Design Seminar, 442 Theory of Urban Design and Development, 491 Seminar in Architectural Communication, 492 Seminar in Architectural History, 494 Seminar in Urban and Regional Planning, and Arch 530 Research Methods. (This course can be taken as an elective for grads and undergrads and is specifically directed towards the MS students in Spokane).

The university also has extensive resources for students regarding writing. The Center for Teaching and Learning houses full time staff that is available to help students increase their writing skills. The school has utilized this office in terms of referring students to this center. Also the school has incorporated a series of writing symposiums organized by the Center to assist faculty in developing and testing writing in their courses. The Writing Center is well utilized by the school and has made an important contribution to our students and faculty.

3.13.2 Critical Thinking Skills
Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well reasoned conclusions, and test them against relevant criteria and standards.

At a fundamental level this criteria pervades our entire curriculum. However, the most direct manner that this criteria is met is through the design studio. Beginning at the first year students are introduced into the value of abstraction, analysis, evaluation and interpretation. Throughout all studios students are required to demonstrate diverse possibilities of solutions and evaluate their own value systems while seeking to understand those of others. Many projects require students to collaborate in teams to discover potential solutions. Participants in teams will often include students from other disciplines. The value of critical thinking is also highly integrated into our history/ theory sequence Arch 209, 220, 309, 324, 409, 425. Our technical courses Arch 330, 351, 352, 353, 354 and ECS course 432 and 433 also require extensive critical thinking.

Critical thinking skills are also an important mission of the university. The following is in part and outline of the goals and outcomes of the Critical Thinking Project. In 1996, the Center for Teaching, Learning, and Technology (CTLT), the General Education Program, and the Writing Programs collaborated to develop a seven-dimension critical thinking rubric (See btQ:i uc;;1Q£.9j§c;,:Lyysu.edu/ctr_...htm) derived from scholarly work and local practice and expertise to provide a process for improving and a means for measuring students' higher order thinking skills during the course of their college careers.

3.13.3 Graphic Skills:
Ability to employ appropriate representational media, including computer technology, to convey essential formal elements at each stage of the programming and design process.

Required Courses:
by all incoming students. Arch 101 and 103 provides a strong basis for the communication of complex architectural ideas of later years. Fundamentals of sketching, drafting, abstract thinking, model making and conceptual design form the basis of these two courses. Arch 101 and 103 require performance at the ability level in all skills except computer communication. One faculty member is assigned to coordinate all sections and assignments in the first year. Our highest quality Graduate TA’s deliver the daily assignments and work in the studio. All
succeeding design studios build sequentially on the base received in 101 and 103. Computer graphic skills are introduced at the second year as students are required to purchase computers at this time. Further computer graphics are developed in upper level studios and elective courses.

Elective Courses:
Additional computer technology skills are available in Arch 451 and 452 Computer Aided Design. In the spring of 08 Arch 452 will focus on Revit and introduce BIM technology. Advanced computer animation such as Maya are also available.

3.13.4 Research Skills
Ability to gather, assess, record and apply relevant information in architectural coursework.

A strong research foundation is generated in the General Education Requirements required courses culminating at the "ability" level in the Tier III elective typically taken when a student is a Junior or Senior. In the architecture undergraduate program the research component is highly emphasized in the M courses, including all history and theory classes. In the history courses Professor Gruen outlines comprehensive systems of research criteria for all papers including specific formats for identifying sources. This is followed in the graduate program where all the seminar courses and the graduate research methods course require students to document and develop specific research methodologies.

In the design studios research skills are sequentially developed as a student progresses through the program. Research methods are initiated at the second year studio and progressively evolve as students matriculate through the upper studios. In addition the theory courses 209, 309, 409 integrate research components into the courses. At the graduate level Arch 515, 513, 525, 527, 531, 542 all have extensive research components.

Elective Courses:
Additional focus on research skills is provided in the following elective courses; Arch 442 Theory of Urban Design and Development, 491 Seminar in Architectural Communications, 492 Seminar in Architectural History, 494 Seminar in Urban and Regional Planning and 530 MS Research Methods.

3.13.5 Formal Ordering Systems
Understanding of the fundamentals of visual perception and the principles and systems of order that inform two and three dimensional design, architectural composition and urban design.

Required Courses:
Formal ordering systems are introduced in Architecture 103. In this course students learn the fundamentals of point, line and plane and how these elements are organized into ordering systems for architecture. This information is continued in the second year where the fall semester design studio (Arch 201) focuses on issues of composition both in terms of plan and section development. In the Arch 209 theory course students explore fundamentals of architectural language including the seven elements of architecture; window, ceiling, stair, column, doors, floors and roof. Ordering systems are continued to be emphasized in third year studios. Issues of urban structure are developed in the fourth year studios (Arch 401, 403). Arch 401 looks at the development of large commercial and institutional structures while Arch 403 is an exploration of housing in the urban context. In Spokane Arch 401 is an interdisciplinary studio that investigates particular urban issues in
the Spokane context. Ordering systems are also introduced in the history/theory courses where students learn the historical significance of ordering systems.

Our elective courses including Arch 442 and 577 introduce students to ordering systems in terms of urbanism. Arch 577 explores the generative ordering systems throughout history related to culture and technology and Arch 442 explores development patterns.

3.13.6 Fundamental Design Skills
Ability to use basic architectural principles in the design of buildings interior spaces and sites.

Required Courses:
Building upon fundamental design skills in Arch 103 Design Studios: 201, 203, 301 and 303 advance these skills through students developing understanding of circulation, structure, materials and site circumstances. Students are expected to demonstrate how these elements inform spatial qualities. Also, students understand how architecture and architectural ideas can be derived from related disciplines such as the fine arts. In Arch 301 students engage in our annual masonry competition for the first half of the semester. Arch 303 investigates fundamental design integrating structures, materials, costs and specifications.

Other required courses which address fundamental design skills are our structures courses, environmental controls and materials courses. These include, Arch 330, 351, 352, 353, 354, 432 and 433.

3.13.7 Collaborative Skills
Ability to recognize the varied talent found in interdisciplinary design project teams in professional practice and work in collaboration with other students as members

This criteria has been a very high priority for the school and is manifested in several ways. The first is through our integrated education series where architecture and construction management teams work together in seminar, and Charette formats on specific design and construction problems. This occurs each spring and is required of all third and fourth year students in the school. Other forms of collaboration occur through our Arch 401 design studio in Spokane where architecture, interior design and landscape students share a common studio and project for one semester.

Additional collaborations occur in the third year studio (Arch 301) where architecture students work with CM students in developing cost proposals for projects. Currently the school is exploring a series of options to increase integration in the school between architecture and construction management. Other design studios have students work in teams during design projects that extend from a research phase through the duration of the project.

The School is in the process of developing an Institute for Sustainable Design (see appendix). The institute is a collaboration between architecture, construction management, civil engineering and the WSU Wood Materials lab. The Institute will be a place where students from four disciplines will work together to design and develop new strategies for sustainability in an interdisciplinary context. The institute is one of the top priorities for the College in the upcoming WSU capital campaign.
3. J 3.8 Western Traditions

Understanding of the Western architectural canons and traditions in architecture, landscape, and urban design, as well as the climate, technological, socioeconomic, and other cultural factors that have shaped and sustained them.

Architecture 220, 324, and 309, while global surveys, are weighted towards the western tradition. The courses are oriented around a cultural, political, economic, and spiritual history of architecture, urbanism, and landscape. The courses follow a loose chronological format to help students maintain clarity and order.

In Architecture 220 students learn about the earliest surviving works of architecture and urbanism completed by humankind (i.e. the Anatolian town of Çatal Höyük, Stonehenge, and the Old Kingdom Pyramids of Egypt). They then follow that tradition through Mesopotamia, Egypt, classical antiquity (Greece, the Hellenistic World, and Rome), early Christianity, and the medieval (Romanesque and Gothic). Architecture 324 picks up where 220 leaves off and begins with the Italian Renaissance. This is followed by Roman and French Baroque, London, the British picturesque landscape tradition, French Neoclassicism, Colonial and Jeffersonian America, the Rise of Industry, the Gothic Revival, Haussmann's Paris, the Parks Movement, and Domesticity in the American suburb.

Architecture 309 continues the western tradition in the modern world. Topics include Chicago, the World's Columbian Exposition, the Arts and Crafts, Garden Cities, Charles Rennie Mackintosh, the Vienna Secession, the Deutsche Werkbund, de Stijl, Dutch and German housing experiments. The course continues through Alvar Aalto, the Bauhaus, Le Corbusier, Frank Lloyd Wright, Mies van der Rohe, Postmodernism, Starchitecture, and Sustainability.

3. J 3.9 Non-Western Traditions

Awareness of the parallel and divergent canons and traditions of architecture and urban design in the non-Western world.

Significant portions of Architecture 220, 324, and 309 introduce non-western architecture and urban design.

In the past year, among other texts, a new text that better represents the non-western world has been adopted: Francis D.K. Ching, Mark M. Jarzombek, and Vikramaditya Prakash, A Global History of Architecture (Hoboken, NJ: John Wiley and Sons, 2007).

Specifically, lecture topics in Architecture 220 include the architecture of ancient India and sub-Saharan Africa, as well as the architecture of ancient China, Japan, Native America, Mesoamerica, and the early Islamic environment. Lecture subjects in Architecture 324 include Mughal India, Ottoman Istanbul, Tenochtitlan and Aztec architecture, Inca architecture, the architecture of native cultures of the Pacific Northwest. In the modern course, Architecture 309, entire lectures are dedicated to the Arts and Crafts movement (and its connections to Japanese craft) as well as Chandigarh and New Delhi are presented. Portions of other lectures include discussion of Luis Barragan, Brasilia, and the Japanese Metabolists.

In addition to the history sequence non western traditions are also covered in our Arch 428 course on Islamic Architecture. This course serves as a tier III GER for non architecture majors and serves as an elective course for architecture students. Also, under Professor Samizay our fourth year studio undertakes studio projects that incorporate much of his experiences and work in Afghanistan. Architecture students are also allowed to take Phil 435 East / West Architecture as a
tier III GER. This course is taught by Professor David Wang and is offered through the Philosophy department so that architecture students may take it for GER credit. In addition Professor Wang has led two study tours to China for our students over the last five years.

3. 13.10 National and Regional Traditions
Understanding of national traditions and local regional heritage in architecture, landscape design and urban design, including the vernacular traditions.

Topics and lectures in Architecture 220 and 324 cover regional styles and traditions have emerged over time. Lectures in Architecture 324 (the Haida and Kwakiutl architectural heritage of British Columbia) and 309 (Arts and Crafts and Early Modernism in Los Angeles; the "Prairie School" in the Midwest) highlight some general regional trends. One lecture in Architecture 324 cover information about the promotion and settlement of the American West, forts in Washington and Oregon, Olmsted's plan for Tacoma, and early campus architecture at Washington State University.

Architecture 492 focuses on the vernacular tradition in America, and critically explores the idea of the vernacular. The course holds as its premise that the complexity of vernacular architecture is embedded in the cultural landscape – at the intersection of human social relations, design, and the land. The course involves readings from a variety of disciplines including architecture, architectural history, urban design, landscape architecture, preservation, geography, American history, American studies, anthropology, and folklore.

Our design studios from second through fourth year incorporate local traditions, values and history into studio projects. Invariably students are always required to research the local context of a specific site and location as well as the traditions of the area. These issues form the basis for discovery of design solutions. This continues in the graduate program where the Arch 527, 525, 542 and the graduate design studios (Arch 511, 513) all require students to demonstrate understanding of national and regional traditions.

3. 13.11 Use of Precedents
Ability to provide a coherent rationale for the programmatic and formal precedents employed in the conceptualization and development of architecture and urban design projects.

An awareness and understanding of the use of precedents is introduced in the early year design studios 103 Visual Design, 201 Architectural Design I, 203 Architectural Design II, 301 Architectural Design III, 303 Architectural Design IV, progressing to the level of "ability" in the upper year design studios; 401 and 403. History/ Theory courses that utilize precedent are Arch 202 The Built Environment, 209 Design Theory I, Architecture 309 Design Theory II and Arch 409 Design Theory III. Ability is expected in Arch 515 Research Methods while supplemental exposure is available in elective courses such as 494 Seminar in Urban and Regional Planning and 540 History and Theory of Design Issues in Architecture and 577 Urban Constructions. The structures courses also utilize precedent as a means of understanding structural principles.

3. 13.12 Human Behavior
Understanding of the theories and methods of inquiry that seek to clarify the relationship between human behavior and the physical environment.

Issues of human behavior are introduced to students in the Arch 103 and 202 courses. Design projects in Arch 103 require students to begin to consider issues of human movement patterns, way finding and organizational patterns. In Arch 202 students are
introduced to issues of human behavior as it relates to ancillary design disciplines including interior design, landscape design and engineering.

Human behavior patterns are continued in upper division design studios, arch 301 and 303. In particular Arch 403 which focuses upon urban housing investigates urban housing patterns and Arch 409 requires students to understand precedents of housing and settlement patterns.

In addition all of our history courses Arch 220, 324 and 309 are presented in terms of how human behavior has influenced historical development.

313.13 Human Diversity
Understanding of the diverse of needs, values, behavioral norms, physical ability and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity for the societal roles and responsibilities of architects.

The foundation of an understanding of human behavior and diversity is initiated in the General Education course requirements, especially in the World Civilization unit, in social science and intercultural requirements. In the architectural program awareness is emphasized in all design studios, in the History/Theory courses and also in, Arch 434 Acoustics, 472 Construction Communications/Codes and Arch 573 Professional Practice. Diversity is also emphasized in the Arch 428 course on Islamic Architecture and Phil 435 East/West Architecture.

3.13.14 Accessibility:
Ability to design both site and building to accommodate individuals with varying physical abilities.

In Arch 472 chapter 11 of the IBC is covered and assignments are given relative to ADA problems with reference to the ADAAG (The American’s with Disabilities Act Accessibility Guide).

Issues of sustainability are covered in a series of courses in the curriculum. In our required courses sustainability is introduced in the Arch 202 course which provides fundamentals into environmental issues. Our design studios starting at the third year integrate issues of sustainability into projects. In addition, many of our students focus on this issue during their graduate project. Our other courses in ECS spend considerable time focusing on energy, environment and design. In the spring of 2007 the Arch 525 course focused on issues of environment from energy to population issues. Students in teams of two presented these issues to all of our second year students in a one day symposium format. Also in Arch 330 material and systems selection are presented based upon sustainability and life cycle engineering as one factor for selection.
In the fall of 2006 we began offering an elective course (Arch 493) which focuses on sustainability and prepares students to take the LEED examination. At this time we have had 16 students take the course and 5 have passed the examination. We will be continuing with this course each fall and as of this writing we have 20 students enrolled in this course for fall 2007. In 2003 we began the process of participating in the national solar decathlon. In 2005 the school exhibited our project on the national mall in Washington DC.

We have also recently formed an Institute for Sustainable Design. The Institute is a collaboration between the school, Civil Engineering and the WSU Wood Materials Lab. The Institute will be an enterprise where students, faculty and researchers work on construction systems and design utilizing green materials developed at the wood lab. The Institute also has an outreach mission to educate the public on these issues. See appendix for goals and objectives and action plan.

3.13.16 Program Preparation:
- Ability to prepare a comprehensive program for an architectural project, including equipment requirements, an analysis of site conditions.
- A review of the assessment of client and user needs, a critical review of appropriate precedents, an inventory definition of site selection and design assessment criteria.
- Relevant laws and standards, and assessment of their implication for the project, and a

While many of the above issues are developed incrementally in the design studios beginning at the first year, the comprehensive developments of these skills occur in the Arch 515 Research Methods project as well as empirical knowledge from precedents to site analysis and local zoning issues. In this course students develop a theoretical construct for their graduate project. In this course students develop a theoretical construct for their issues.

3.13.17 Site Conditions
- Ability to respond to natural and built site characteristics in the development of a program and the design of a project.

All seven undergraduate design studios require students to develop abilities in evaluating and understanding site conditions. These include both latent and apparent site conditions. At the graduate level students are required to take Arch 527 Site and Landscape Design. This course requires students to investigate the empirical and sensual qualities of the landscape. This course is intended to help students understand that architecture and the landscape are interconnected and that the exterior environment is a critical component to architecture. Other courses where site is emphasized is the Arch 515 Research Methods course and the Arch 428 Islamic Architecture course. In addition the history/ theory courses also present the cultural conditions of site. The graduate studios all require students to demonstrate proficiency in responding to and integrating site conditions into their project.

3.13.18 Structural Systems:
- Understanding of the principles of structural behavior in withstanding gravity and lateral forces and the evolution, range and appropriate application of contemporary structural systems.

Arch 351, Arch 352 and Arch 563 is the required Architectural Structures lecture sequence for Arch students. These courses introduce students to basic structural theory including: load forces on architectural structures; concept of equilibrium; statics and strength of materials; bending
theory; and analysis and design of statically determinate structure systems in timber, steel, reinforced concrete and masonry. The sequence follows this pattern:

- ARCH 351 Structures I: forces, statics, strength of materials, timber systems
- ARCH 352 Structures II: steel systems
- ARCH 563 Structures III: lateral forces (wind & seismic), reinforced concrete & masonry systems

Parallel with ARCH 351 and ARCH 352, the students are enrolled in a full-year Structures Studio, ARCH 353 and 354. In this Studio they are introduced to all of the structure systems that have been used to span and enclose architectural space. Emphasis is on the history and evolution of these structure systems, integration of structure with other architectural systems, and the relationship between structural systems and architectural form and space.

- ARCH 564 Structures IV: Indeterminate structure systems; classic theory and analysis by computer software
- ARCH 498 Seminar in Architectural Structures

Building upon the structural courses students begin integrating structural systems in the spring semester of second year (Arch 203) and continue developing structural systems in their design throughout all the studio courses.

**13.19 Environmental Systems:**

Understanding of the basic principles and appropriate application and performance of building envelope materials and assemblies.

In Arch 432 Students are asked to evaluate and compare thermal performance of various building envelope designs. Emphasis is placed on evaluating "cost/performance" criteria in terms of energy use, design heat loss and heating/cooling system sizing. Whole-building and component thermal performance are analyzed, including slab/foundation, fenestration, wall, roof and air infiltration. The architecture and CM students take this course con-jointly. Assignments and projects require students to from collaborative tams from each discipline to work together.

**13.20 Life Safety:**

Understanding of the basic principles of life-safety systems with an emphasis on egress.

This material is covered in the design studios from third year on as well as the Arch 472 course Codes and Acoustics. In this class students study the 2006 International Building Code and supporting documents as a means to provide designers a sense of how to understand the code application process, and applying them in several design scenarios. Actual building projects are studied in context, along with varying plan review interpretations. Guest lecturers cover specialized topics, such as sprinklers, and city building departments.

In addition the codes course covers the following information.

Occupant load
Exit system design

**13.21 Building Envelope Systems:**

Understanding of the basic principles and appropriate application and performance of building envelope materials and assemblies.
The understanding of building envelope systems begins in the second semester design studio and continues each semester on. In particular, fourth year studio students are expected to demonstrate understanding of systems in large urban structures. At the graduate level students must demonstrate a clear understanding of the building envelope system as one of the criteria for passing the graduate project. Other courses such as Arch 330 Materials and Methods 432 and 433 Environmental controls as well as the structures courses integrate envelope systems. At the graduate level the Arch 531 Advanced Tectonics looks at contemporary issues and architects much of which is focuses upon building envelope systems.

3.13.22 Building Service Systems:
Understanding of the basic principles and appropriate application and performance of plumbing, electrical, vertical transportation, communication, security and fire protection systems.

Division 14,15 and 16 systems are the focus of both ARCH 432 and 433. Planning, design and accommodation for these systems are covered in detail, including system sizing, routing and commissioning. Life-cycle performance is introduced along with planning for renovation and maintenance. Special emphasis is placed on fire-safe design and code requirements for building penetrations. Current trends in building system design and sustainable practices are highlighted in both courses. Fire protection systems in Chapter nine of the IBC are covered in the Arch 472 course. From third year studio students are expected to be able to demonstrate an understanding of the integration of service systems into their designs.

3.13.23 Building Systems Integration:
Ability to assess, select and conceptually integrate structural systems, building envelope systems, environmental systems, life-safety systems and building service systems into building design.

3.13.24 Building Materials and Assemblies:
Understanding of the basic principles and appropriate application and performance of construction materials, products, components, and assemblies, including their environmental impact and reuse.

Building systems, materials and assemblies are first introduced into the second year design studio. Students are expected to begin to integrate fundamentals of building systems even though their experience is limited. Studio faculty provides the foundation information to reach these objectives. As students matriculate into upper division studio students are expected to be able to integrate technical information into their building design. Environmental and structural understanding is expected to be fully integrated at the graduate project. (See appendix for graduate project requirements). Assembly systems are also covered in both materials courses Arch 330 and 531.

3.13.25 Construction Cost Control
Understanding of the fundamentals of building costs, life cycle costs and construction estimating.

Construction cost control is addressed specifically in the third year spring semester design studio, Arch 303. In this semester students spend approximately four weeks working in conjunction with the construction management students in developing cost implications for their design work. In addition students also develop outline specifications as part of this course. Students also have access to our construction management courses in cost control and each year we offer an
elective for architecture students (Arch 495) on conceptual estimating. Over the last three years of this course there has been a typical enrollment of 15 – 20 students which constitutes about 1/3rd of our undergraduate enrolled in this elective course.

3.13.26 Technical Documentation:

Ability to make technically precise drawings and write outline specifications for a proposed design.

All studios beginning with the spring semester second year (Arch 203) require students to show evidence of construction knowledge. These typically come in the form of building sections or specific details. Further the spring semester third year spends time developing modified sets of working drawings in conjunction with outline specifications and costs control. Other courses which require technical documentation are all structures courses, Arch 330 Materials, Arch 436 Furniture Design and Arch 491 Art of the Detail. In the structures courses students are required to know technical information in terms of structural connections and systems. This is manifest through drawings and sketches on quizzes as well as the two structures studios.

3.13.27 Client Role in Architecture:

Understanding of the responsibility of the architect to elicit, understand and resolve the needs of the client, owner and user.

This understanding is always at the core of the design studios. Students understand from early on that a significant responsibility is to develop skills that facilitate communication and understanding regarding clients, owners and users. The Arch 573 course Ethic and Practice is where this information is comprehensively delivered. Students are exposed to case studies and best practices through direct contact with practicing architects regarding the nature of architectural practice. During the fall of 07 our graduate students and faculty will be working with CM students and faculty on integrating a portion of the 573 course with the CM project delivery course. The intent is to integrate both constituencies in order for the architecture students to have a greater understanding of delivery systems. These issues are also an integral part of our Integrated Education series which was addressed earlier in this report. Architects ethical responsibilities in terms of society, client, owner and advancing the profession are part of the discourse in Arch 573. Students are presented with complex case studies and asked to develop judgments based upon law and precedent. This material also overlaps into the graduate project.

3.13.28 Comprehensive Design:

Ability to produce a comprehensive architectural design project based upon a building program and site that includes development of programmed spaces demonstrating an understanding of structural and environmental systems, building envelope systems, life safety provisions, wall sections and building assemblies and the principles of sustainability.

The above is accomplished through our graduate project sequence of Arch 515, Research Methods and Programming, Arch 511 Graduate studio and 513 Graduate Studio. We have developed a series of specific requirements that students must meet in order to successfully complete their graduate project (see appendix). In addition students must pass a series of “exams” or milestones each semester in order to continue in the program. Students that do not meet the milestones or pass the exams are given one semester to bring their work to the required expectation. If they are not able to pass after the second semester of work then they are dropped from the program. All of the above information is distributed reviewed with new graduate students at the beginning of each year and is also published on our website.
3.13.29 Architect’s Administrative Roles
Understanding of obtaining commissions and negotiating contracts, managing personnel and selecting consultants, recommending project delivery methods and forms of service contracts.

See 3.13.27

3.13.30 Architectural Practice
Understanding of the basic principles and legal aspects of practice organization, financial management, business planning, time and project management, risk mitigation, and mediation and arbitration as well as an understanding of trends that affect practice, such as globalization, outsourcing, project delivery, expanding practice settings, diversity and others.

See 3.13.27

3.13.31 Professional Development:
Understanding of the role of internship in obtaining licensure and registration and the mutual rights and responsibilities of interns and employers.

This topic is integrated into the Arch 573 Ethics and Practice course as well as our requirement for internship in the graduate program. All graduate students must participate in a summer internship between the second and third semester (Arch 580). Students may select to participate in a summer internship, foreign studies or specialized coursework. For those students participating in the internship (approx 903) the school has developed formal relationships with about forty firms. Students may work for one of these firms or select one of their own. The summer internship process is set up similarly to the IDP program. Students are assigned a mentor and must submit a report to the graduate coordinator at the end of the summer. The firm mentor works with the graduate coordinator in determining the grade for the course. Also each year the Washington State Architectural Licensing board holds one of their meetings on the Pullman campus. As part of their meeting they host a lunch for our students and an open forum for students to ask questions regarding licensing.

3.13.32 Leadership:
Understanding for the need of architects to provide leadership in the building design and construction processes, and on issues of growth, development and aesthetics in their communities.

Leadership for architects at WSU is communicated through reinforcing that an effective leader is an effective collaborator. That is, the architect needs to learn how to draw individuals together from diverse backgrounds and disciplines in order to reach a common goal. To that end our courses seek to portray this approach to our students. From the design studios to our graduate course and seminars we seek to demonstrate how the architect can lead in collaborative process. Examples of this are evident in our Integrated Education Series, our Solar Decathlon House, our internship program and the overall atmosphere that pervades our faculty and courses.
3.13.33 Legal Responsibilities:
Understanding of the architect's responsibility as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, historic preservation laws, and accessibility laws.

This information is covered in the following courses: Arch 515 Research Methods and Programming, Arch 472 Codes and Acoustics, upper division design studios, Arch 573 Ethics and Practice and the graduate design studios Arch 511 and 513. Students are also encouraged to take our construction law course as an elective.

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**Legend:**
- **sp**: Spring
- **fall**: Fall
- **M**: Seminar
- **Arch Design**: Architecture Design
- **Grad Design Proj**: Graduate Design Project
- **Arch Hist**: Architecture History
- **Design Theory**: Design Theory
- **Materials + Const**: Materials and Construction
- **Arch Structures**: Architecture Structures
- **Enviro Control**: Environmental Control
- **Res Methods + Prog**: Research Methods and Project
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- Construction Industry Materials I
- Materials II
- Proj. Mgt, Contract
- Code and Zoning
- Planning Scheduling
- Legal Aspects
- Estimating I
- Estimating II
- Methods Procedures
- Const Cost Mgt
- Capstone
4. Supplemental Information

4.1 Student Progress Evaluation Procedures
4.2 Studio Culture Policy
4.3 Course Descriptions
4.4 Faculty Resumes
4.5 Visiting Jeam Report from the Previous Visit
4.6 Annual Reports
4.7 School Catalog
4.1 Student Progress Evaluation
4.1 Student Progress Evaluation

Transfer Credit Evaluation

The Office of Admissions at WSU evaluates transcripts of all students who have attended another school prior to entering WSU. They determine the total number of credits that will be accepted by WSU. More specifically, specialists in that office determine which transfer credits will satisfy WSU General Education Requirements. This information is recorded on a form supported by documents, which are included in the student's academic records on file with the School.

Most students enter the Architecture Program as freshmen at the ARCH 101 level. Some attend community colleges before transferring to WSU primarily taking GER courses, enter our program at the ARCH 101 level and spend three to four additional years completing their B.S. in Architecture Studies Degree.

Some students attend community colleges or other four-year institutions for a year or two, take courses approximating our lower division courses and apply to enter the program at the second or third-year level. These students must submit a portfolio of their graphic and design work which is reviewed by members of the Admissions and Academic Affairs Committee (AAAC) and other design faculty to determine if the work is reasonably comparable to work done by our students at that level and if it appears the applicant could reasonably succeed in the next level design course if admitted.

After this determination is made, the student is placed in the pool with other students applying for entry at that level and final selection is based on their GPA in the architectural program requirements taken to date.

If a student has taken other courses for which they want credit, such as history or structures, after they are admitted, the AAAC will review their request and accompanying documentation such as full course descriptions, work done, etc. and make a recommendation to the Director. In these cases, input is usually solicited from faculty with expertise in the subject matter being considered.

A similar procedure is followed for students who request admission at the fourth or fifth year levels. We admit few students at these levels since admission is also subject to space being available in the studio.

Students Progress Evaluation Procedure

It is the policy of Washington State University to admit all applicants if the total evidence (academic records, test results, recommendations and/or interviews) indicate reasonable probability of success and the facilities are available for them.

The university requires undergraduate students to maintain for continuation and graduation at least a 2.00 cumulative grade point average. If they fall below this level for two consecutive semesters, they are considered academically deficient and a student who is deficient for two consecutive semesters is dismissed from the university.

Because of the competitive nature of architecture, pre-architecture students who have academic problems have a minimal chance of getting certified at the second or third-year level and, recognizing this, they usually transfer to another major. Those who are admitted to the second or third-year program and are certified in architecture have above average GPA's and usually have no serious academic problems thereafter. An average GPA is now about 3.00 or more.
4.2 Studio Culture Policy
The following represent attitudes, responsibilities and appropriate behavior that are expected in design studio and labs at Washington State University, School of Architecture and Construction Management. It is expected that all students will adhere to the following in order to ensure the rights of all students.

- Please reference the attached policies regarding indoor air quality and collegiality within the school. It is expected that students will respect the issues that are discussed in these policies and implement them in their studies at WSU and the school.
- While students spend long hours in studio and labs it is important to be aware of others and that conversations and comments towards others or about others should not be offensive or derogatory. The university as well as the school does not tolerate actions or language that is abusive, prejudicial or racially demeaning to individuals or groups.
- In the design studio use of any materials such as paint, adhesives or other materials that produce any chemical off gassing must be used in the spray booths in the fourth and fifth year studios. (See attached policy on Indoor Air Quality)
- It is understood that students spend many hours in design studio and labs. Music is a means by which some students are able to work effectively. It is also a means of irritation to others as one person music is not enjoyed by all. As such, the school requires that all students who wish to listen to music must do so through the use of earphones only. This applies not only during studio time but also during night and weekend work.
- Students are free to use pin up space at their desks for important information related to courses. Also, personal information and or photographs may be placed within each student’s work area. However, please be aware of the content of such material. Faculty that observes material, which illustrates a derogatory, sexual or demeaning content, will ask that the material be removed.
- Through the normal production of studio projects a certain amount of waste material will be generated. Please be aware of recycling bins located throughout the building, and recycle all materials possible.
- The custodial staff is responsible for the overall maintenance of the building. However all students should work towards keeping their work area clean and free from trash. Items such as food wrappers, pop cans etc. should be disposed of promptly.
- Consumption of any alcohol or possession of a controlled substance is expressly forbidden within Carpenter Hall and the University.
- Keep in mind that seminar rooms located adjacent to the studios are intended to be places for group work and interaction. Avoid using these spaces for individual work areas. It is very disruptive to faculty and other students who want to use these spaces when there are individual student projects being produced in these rooms.
• One of the important learning objectives of a university education is time management. While architecture and construction management are time intensive disciplines students need to learn to use their time effectively and efficiently. Effective use of time and decision making during regular studio hours will significantly reduce the need for "all nighters" and will ultimately yield better work.

It is assumed that all students within the school are here for the pursuit of knowledge and a desire to learn the profession of architecture and construction management. Adherence to the above will facilitate overall access and opportunity for success in the school.
4.3 Course Descriptions
ARCHITECTURE 101 - Graphic Communication
3 Credit Hours (6 studio hours), Required Studio Course, Fall Semester

DESCRIPTION:
This course is intended to increase a students’ visual literacy by introducing different ways of seeing
the built environment in addition to learning basic graphic skills and principles.

PREREQUISITES:
Math 103

INSTRUCTOR:
Miyasaka

OBJECTIVES:
By the end of the semester, students should be able to:
- master basic two- and three-dimensional graphic skills and model making skills
- comprehend basic design principles
- comprehend and employ basic design vocabulary
- identify many significant buildings
- dissect the layers of systems in a building
- identify various alternative career paths based on an architectural education
- present their work eloquently

CONTENTS:
Project 1
a: Definition of two squares - Axis; balance; symmetry and asymmetry; hierarchy; datum;
center/edge; repetition; rhythm; static/dynamic qualities of composition
b: Articulation of forming, and forming of articulation through drawing and paper-folding
c: Folded paper drawing
d: Design and construct a fruit container based on the folded paper assignment

Project 2
a: Make a set of three postcards that depict the Palouse landscape through one particular lens.

Project 3
a: Draw Canyon House: Site plan; Rrst, second and loft plans; East, south, west, and north
elevations; 3 sections
b: Make a model of Canyon House, Study Tour to Canyon House

Project 4
a: Volume study - With 12 CUBES AND 12 RODS, compose a 3" cube of figural solids and voids that
displays a hierarchy of organized volume

REQUIREMENTS AND INSTRUCTIONS:
- Weekly Lecture -- Students are required to attend a general lecture which will introduce
  students to the fundamentals of architectural design. This lecture will be related directly and
  indirectly to assignments given in studio sessions. There will be pop quizzes and weekly sketching
  assignments.
- Studio Sessions -- The studio meets for a total of six contact hours per week. The assignments
  require students to creatively apply the ideas presented in class. Design projects never have a
  "right answer", so students will have to learn to think freely, independently.
- Grading - The students will receive points after each assignment. Accumulated points are
  translated into letter grades, which are issued after 6 weeks (mid-term) and at the end of the
  course. The number of points for will increase as the semester goes on.
- Attendance and Participation -- There are zero unexcused absences allowed.
ARCHITECTURE 103 - VISUAL DESIGN
3 Credit Hours. Required Studio Course. Spring Semester

DESCRIPTION:
The intentions of this course are to introduce students to the elements of two- and three-dimensional design and space-making; to introduce students to a systematic design process utilizing analytical and intuitive thinking to solve design problems using both graphic (sketches, drawings, models) and verbal language to express their ideas; to introduce students to the skills, attitudes, and behavior required to become a practicing professional in the fields of design and construction.

PREREQUISITES:
Arch 101 or equivalent

INSTRUCTOR:
Miyasaka

OBJECTIVES:
Students will be introduced to the skills and design knowledge listed below, but achievement will depend on each individual student's ability and effort (see GRADING).

Design Knowledge: Ability to develop and work with an abstract design concept-to translate the concept into three-dimensional space; Ability to organize a plan in a logical fashion, and to create an interesting spatial sequence; Ability to create sectional space that is interesting to experience; Ability to manipulate the basic design elements: lines, planes and volumes in order to create spaces; Ability to identify and utilize basic structural systems (column and post and beam), plan organizing systems (grid, free plan, heterogeneous plan). and promenade organizing systems (linear, radial, etc).

Skills: Craft in free-hand and drafted pencil work - consistency, uniformity, sharpness, accuracy; Ability to use elementary drafting tools – drafting board, T-square, 45/45 and 30/60 triangles, architectural scale; Craft in laying out and drawing a presentation sheet with appropriate margins, titles, architectural conventions and balanced composition; Craft in model-making; Ability to accurately illustrate the layering and joining of construction elements

CONTENTS:
• Project 1
  a: beauty (n.) ugly (adj.) - Text response, document objects through distance perception
  b: Observation, sketch, scale, re-design utilitarian objects
• Project 2: Construction with Linear Elements
• Project 3 Construction using Planar Elements: Path, Shelter, Hearth
• Project 4: Design and construct a cardboard chair using linear and planar elements
• Project 5: Design using linear and planar elements in section – Live/Work Housing for a Sculptor

REQUIREMENTS AND INSTRUCTIONS:
Course time will be divided between critiques at the desk, pin-ups and lectures.
In this course, as in professional practice, being there and the intensity of effort will be reflected in the rewards. The level of effort is generally equated with the level of development of skills. The more you put into this course, the more you will get out of it. As in any course, attendance is critical and will affect your final grade. Active, positive participation in the studio during critiques, etc., can have a positive effect on your final grade in this course.

LECTURE SERIES There will be six lectures this semester
DESCRIPTION:
Introduction to the influences that shape the built environment, be it cultural, material, or artistic.

PREREQUISITES:
None

INSTRUCTOR:
Rahmani

OBJECTIVES:
The built environment is in many ways a reflection of how we, either as individuals or as a collective, choose to define our values. Whether it is a gas station or a museum in the city, the decisions that we make to build our settings ultimately come to represent the struggles and aspirations that we choose to live by. The purpose of this course will be to study the built environment with an objective view, bringing reason to an otherwise seemingly inexplicable world. Before too long we all inevitably will find ourselves involved in having to make a decision about an intervention coming up in our neighborhood or city; here it is imperative that one's voice is heard with measure and clarity, not hearsay and emotional baggage.

The course will be divided into four ports, each port taking up the cause of an environment different from the one before it. The first port will focus on the rural environment, proposing that the spirit of America has always resonated and continues to resonate less with urban centers and more with open vistas and natural scenes. The second port will look at the development of the city and how it has come to represent a synthetic expression between economic, political and social concerns. The third port will address the emergence of the suburb and the way this context has come to dominate our sense of reality. Finally, the course will look at the current manner with which the world of the individual has reinvented how we engage the latter three areas of study, rural, city, and suburbs.

CONTENTS:
- Rural vs. Urban sensibility
- Urban patterns and principles
- Urban / Economic forces on design
- Suburban conditions
- Reasons for suburban growth
- Suburban typologies
- Design principles that shape rural, urban and suburban buildings
- The influence of landscape in ameliorating exterior spaces
- The role of interior design in shaping the built environment

REQUIREMENTS AND INSTRUCTIONS:
Course material is made available through lectures, in-class demonstrations, audio-visuals, assigned readings and homework assignments. The course material can also be accessed online.

Grades are based on quizzes and four papers that work concurrently with the way the course is segmented. The papers comprise 1/2 of the course grade, the quizzes 1/2, with the remaining 1/2 devoted to in-class participation and attendance.
ARCHITECTURE 209 -- DESIGN THEORY I
3 Credit Hours, required lecture Course, Spring Semester
This course addresses NAAB criteria 1, 2, 3, 4, 5, 6, 11, 21

DESCRIPTION:

"To be modern is to live a life of paradox and contradiction..." Marshall Berman: All that is Solid Melts "The taste of the apple... lies in the contact of the fruit with the palate..." Jorge Luis Borges

When architects, artists, writers, hairdressers, anyone for that matter, create something, they are in someway expressing a series of values, beliefs and ideas. The values may be pronounced and articulated, or they may be submerged and revealed intuitively. In any event it can be said that values establish the foundation for decision making in all that we do. As such, this course is designed to help each student understand their own personal value system as it relates to architecture and design. The method for this understanding will be through the investigation of what can be considered significant philosophical thought of the twentieth century. Hopefully, through this investigation, each student will begin to internalize and express individual values, which will become resources for architecture. Ultimately, it all comes down to the following, "in order to express you need to know what you are thinking."

PREREQUISITES
Certification in Architecture

INSTRUCTORS:
Keane, Kessler

CONTENTS: COURSE STRUCTURE:
This course is divided into three parts. The first part will be an exploration into three theoretical positions. These positions represent methods of viewing our cultural, technological and social milieu. The second part will investigate how these positions become expressed in the language of architecture and how specific architects utilize the language to express their ideas. The third part of the course will be a series of discussions and seminars on how the theoretical positions and language can be applied and utilized by students.

Part One: We will investigate the three theoretical positions of Phenomenology, Rationalism and Post Structuralism. It will be important for students to be able to articulate the fundamental principles of each position and the unique view that each has pertaining to the human, built and natural environment. This segment of the course will conclude with a short paper. The class will form groups of three students each to review and edit the papers as they develop.

Part Two: The second and main body of the course will investigate the elements of architecture which constitute the language of design. One element will be discussed each week. During this segment of the course students will be required to assemble a "panel" which graphically represents one particular element and its relation to the three theoretical positions.

Part Three: In the third part of the course the class will be divided into small groups. Each group will discuss the application of the material that has been discussed relative to the theoretical positions. The intent of this part is to allow students the opportunity to discuss in an informal format their beliefs and attitudes relative to the material that has been presented during the semester.

REQUIREMENTS:
Class schedule contains lectures and reading assignments, students complete all reading assignments prior to the related lecture. This course is a combination of lectures, reading assignments and seminars. Attendance at all classes is mandatory. Grading: One 25% Paper; Two 55% Panel; Part Three 10%Active Participation; 103 effort, growth. Text: Theorizing a New Agenda for Architecture, Kate Nesbitt (Editor) Resources: Course folder on the School server - containing all material handed out in class, all updates during the semester, additional reading, and any important notices or information.
Architecture 220 - History of Architecture and Urbanism I: Ancient to Medieval
3 Credit Hours, Required Lecture Course, Fall Semester

DESCRIPTION
This is the first course in the history of architecture and urbanism taught at WSU. We will attempt to cover a great deal of time in one semester, moving from the earliest known works of architecture created by humankind up to the fourteenth century. We will follow a loosely chronological pattern from the Paleolithic era through the medieval period, but as this is intended to be a world architectural survey - embracing non-western architecture in addition to the western canon - we will also move thematically and across cultures. Where relevant, connections will be made to developments in the present to help illuminate the importance and relevance of learning architectural history. We will cover Hindu, Buddhist, Japanese, western canon of Mesopotamian, Egyptian, Greek, Roman, Early Christian, Byzantine, Romanesque, and Chinese, African, Mesoamerican, Native American, and African architecture as well as the traditional Gothic architecture.

This is a lecture-oriented course, and much of the material for the quizzes, midterm, and the final will be drawn from information presented in lecture. As such, it is expected that you attend lecture regularly. As lecture available for pickup, you enter the lecture hall, there will be a study guide of buildings, sites, and terms pertinent to that particular

PREREQUISITES:
None

INSTRUCTOR:
Gruen

REQUIRED TEXTS

WRITING ASSIGNMENTS/EXERCISES
You will have two writing assignments during the semester. The writing assignments are take-home assignments oriented around specific topics or themes. They will introduce you to the process of writing history papers regarding the built environment and conducting research. Writing is an integral part of this course, and I take it seriously.

10 percent

GRADING BREAKDOWN
Attendance and effort:
Writing Assignments: 30 percent (total)
Quizzes: 15 percent (total)
Midterm Exam: 20 percent
Final Exam: 25 percent

NOTE
PLEASE
The midterm and the final will be drawn from the material covered in lecture, supplemented by information from your texts. Attendance is also mandatory, and more than two unexcused absences will affect your grade. You must complete every assignment in this class, and all assignments must be completed and turned in before the final exam. Failure to complete any assignment (or exam) will result in a failing grade for the course.
ARCH 301 - ARCHITECTURAL DESIGN III
5 Credit Hours, Required Studio Course, Fall Semester

DESCRIPTION:

Introduction of architectural design focused on environmental and social issues.

PREREQUISITES:
Certified Architecture major and Architecture 203

INSTRUCTORS:
Hermanson, Wyatt

OBJECTIVES:
The learning objectives for this course are achieved by exploring the relationship of architecture to context and site, to selected materials used in the construction of a building, as well as to the structural systems, lighting and environmental controls that are critical to the design of any building. Learning to understand the climate and landscape within which a building is placed are important to these explorations, as is a grasp of the movement patterns and spatial needs of the building's occupants. Both natural and artificial means of heating, ventilating, air conditioning and lighting are studied in overviews. This building component analysis is intended to bring practical focus to the more theoretical pursuits of the student's design work. In addition to it, the social characteristics that distinguish public buildings from private ones are assessed.

CONTENTS:
The architectural vehicles for these explorations are two medium-sized institutional building. One, a neighborhood library of approximately 10,000 square feet, is located near the downtown of a small rural community. In addition to the investigation of an innovative structural system for this building, the extensive use of masonry as the primary structural and finish material is required; and day lighting is also given particular attention. This project is part of a regional competition to which the student works are submitted and for which awards are given. The other building is a performing arts building of 12,000 square feet. It is located on a small private college campus. The primary purpose of this building is to promote the study and performance of dance.

REQUIREMENTS AND INSTRUCTIONS:
This studio introduces new concepts and skills; however, it also builds upon and reinforces the content of previous course work including knowledge gained in history and theory. To pass the course, a student must demonstrate at least a minimal level of competency in architectural design and the application of professional skills – graphic, written and oral. Examples of libraries and performing arts buildings as well as historical models for these building types are researched, documented and discussed. Then the design of the respective buildings proceeds. Throughout the semester, in seminar format, the instructor presents specific subject related to critical thinking, creativity, and design as well as to the more practical issues of zoning ordinances and building codes. The sixteen-week semester is organized in two parts. The initial eight weeks, which represents 50% of the course and thus grade, are devoted to the planning and design of the library and the preparation of the competition drawings. The remaining eight weeks, representing the remaining 50% of the course and grade, are focused on the design of the performing arts building and its requisite college site planning strategies.
ARCH 303 – ARCHITECTURAL DESIGN IV
5 Credit Hours, Required Studio Course, Spring Semester

DESCRIPTION:
Continuation of the study of architectural design emphasizing form as influenced by cultural, spiritual and symbolic influences.

PREREQUISITES:
Certified Architecture major, Architecture 301 and currently enrolled in Architecture 309.

INSTRUCTORS:
LuarasL Miyasaka, Wyatt

OBJECTIVES:
The learning objectives for this course are achieved by exploring the relationship of a building to its context and site and by selecting and detailing the materials that give that building substance and meaning. The climate, geography and urban landscape within which the building is placed are important considerations, as are the selection of appropriate structural orders, the choice of natural and artificial lighting techniques and the specification of efficient passive and active environmental systems. In addition, the cultural importance of the site and its history, as well as the history of the building type under consideration is researched. Once the students have created a well-defined design proposal, technically precise assembly drawings and a written outline specification for the materials represented in those drawings are produced. As part of this tectonic phase, the students are also introduced to the fundamentals of building costs, life-cycle costs and construction estimating. This in-depth, project specific, exploration is intended to bring a practical focus to the more theoretical pursuits of the student's studio experience.

CONTENTS:
The studio participants investigate ways of architecturally enhancing the public realm in a relatively dense urban setting. In order to do this they focuses on the design of, as well as the construction documents for, a medium-sized institutional building: a fine arts museum of approximately 36,000 square feet located on a site in downtown Seattle. Further, the studio members are asked to create an exterior and an interior environment to accommodate a collection of images and events for which they act as the principal curator and exhibit designer.

REQUIREMENTS AND INSTRUCTIONS:
Examples of recent museums as well as historical models for this building type are researched, documented and discussed. Then the design strategies for inserting a museum into an urban fabric are analyzed. Once the site and building design have been completed, the tectonic phase begins. This phase is intended to provide the student with a better understanding of the practical and technical requirements of getting a building built. Throughout the semester, in lectures, the instructor presents specific topics both theoretic and construction related. Professional consultants are also invited to make presentations on selected technical material. The sixteen-week semester is organized in two continuous segments. The initial ten weeks, which represents 70% of the course and thus grade, are devoted to the planning and design of the Museum. The remaining five weeks, representing 30% of the course and grade, are focused on the construction documents, the outline specification and a basic construction budget.
ARCHITECTURE 309 – DESIGN THEORY II (Modem Architecture and Theory)
3 Credit Hours, Required Lecture Course, Fall Semester

DESCRIPTION
This course will provide a grounding to the major architects, buildings, and theories of modernism –
precedents and ideas that still inform practice today. The theme of the "modern" in architecture
will run through the course, and we will explore (and question) this theme in its myriad
manifestations: stylistic, technological, material, ideological, political, and theoretical. To provide a
foundation for our understanding of the modern, we will begin in the nineteenth century; to track its
alleged decline, we will discuss and question the rise of architectural "postmodernism" in the 1960s
and 70s; to suggest its enduring power, we will examine some projects and architects in the early
twenty-first century, from "starchitecture" to sustainability.

The architects and ideas we will discover will not be examined in isolation – we will attempt to
understand the built and theoretical environment within its social, cultural, political, and economic
context. We will also examine building types, theories, media, and processes that fall outside the
canonical tenets of high-modernism, but which have nonetheless exerted a powerful influence on
the modern built environment. This includes mass production, suburban sprawl, tourism, exhibitions,
transportation systems, marketing practices, photography, shopping, the legacy of colonialism, and
utopian environments offering blueprints for alternative means of living. While the course will be
weighted towards developments in the western world, we will also explore the impact, adaptation,
or rejection of European modernist ideas in the non-western world.

PREREQUISITES:
Certification in Architecture, Arch 220, Arch 324

INSTRUCTOR:
Gruen

REQUIRED READINGS
Ulrich Conrads, ed. Programs and Manifestoes on 20th-century Architecture (Cambridge, Mass.:
MIT Press, 1997)
Joan Ockman, Architecture Culture 1943-1968: A Documentary Anthology. (New York: Rizzoli,
1993)
Kate Nesbitt, ed. Theorizing a New Agenda for Architecture: An Anthology of Architectural

COURSE REQUIREMENTS
in lecture and the readings.
Exams: There will be two quizzes, one midterm, and a final exam testing information and ideas
discussed.
Writing Assignments: There will be two writing assignments, likely to require you to synthesize your
readings in Conrads, Ockman, and Nesbitt with the built environment. More detailed instructions
will be discussed at a later date.

GRADING BREAKDOWN
Quizzes: 15 percent (total)
Midterm: 20 percent
Writing Assignments: 30 percent (total)
Attendance/Participation: 10 percent
Final Exam: 25 percent
ARCHITECTURE 324 - History of Architecture and Urbanism II: Renaissance to mid-19th century
3 Credit Hours, Required Lecture Course, Spring Semester

DESCRIPTION
This is the second course in the history of architecture and urbanism taught at WSU. It is expected that students are certified architecture majors and will have already taken Architecture 220 (ancient to medieval). Chronologically, this course picks up more or less where Architecture 220 finished.

We will follow a loosely chronological pattern from the Renaissance up to the mid-nineteenth century, but as this class is not limited to the western world (it will also embrace non-western architecture) we will also move thematically and across cultures. We will cover Japanese, Chinese, Mexico (Aztec), Inca. Mughal, Ottoman, and Spanish colonial architecture in the "New" World, as well as the more traditional trajectory of Renaissance and Baroque architecture up to the age of industry in Europe and America. We will also discuss architectural theory as it emerges in the Renaissance and is questioned and probed during the Enlightenment.

This is a lecture-oriented course, and much of the material for the midterm and the final will be drawn from information presented in lecture. As such, it is expected that students attend lecture regularly.

PREREQUISITES:
Certification in Architecture, Arch 220

INSTRUCTOR:
Gruen

REQUIRED BOOKS

COURSE REQUIREMENTS
The midterms and the final will be drawn primarily from material covered in class, supplemented by information in your texts. This is also a "writing for the major" (M) course, and therefore your success on the writing assignments - especially the semester-long term paper - is crucial to your success in the class. Attendance is also mandatory, and more than two unexcused absences will affect your grade. All questions and concerns regarding attendance (missed classes, doctor's notes, etc.) must be addressed to the teaching assistants.

GRADING BREAKDOWN
Attendance and effort: 10 percent
Writing Assignments: 40 percent (total)
Quizzes: 10 percent (total)
Midterm Exam: 15 percent
Final Exam: 25 percent
ARCHITECTURE 330--ARCHITECTURAL MATERIALS AND CONSTRUCTION I

3 Credit Hours, Required Lecture Course, Fall Semester

DESCRIPTION:
Arch 330 is the first course in materials and construction. It deals with concrete, steel, masonry, wood, building skin and roof systems. This course has been developed primarily for students involved with building design and construction, who will one day be faced with real world applications as well as professional examinations on the topics presented.

PREREQUISITES:
Certification in Architecture or Construction Management

INSTRUCTOR:
Keane

OBJECTIVES:
Arch 330 is a survey course on materials and methods of construction. The principal intention is to introduce a way of thinking which is critical and diagnostic in nature. While each material is introduced beginning with its history, development and characteristics, the focus is on how materials work together in systems, how they relate and react to each other in western, non-western and vernacular building practices where appropriate. Its aim is to develop an understanding of the basic building materials and systems and will cover construction products and processes, standard materials, good building practice, terminology and most importantly criteria for making decisions on material and system selection. Each material and system is analyzed relative to life time engineering, cost and sustainability while construction methods also review such issues as safety during construction and strategies to control cost. Discussions will also include the legal and ethical role of the architect.

CONTENTS:
- The construction industry
- Soils and excavation
- Foundations
- Concrete: Introduction, Formwork and reinforcing, Prestressing concrete, Site cost concrete innovations, One-way systems, two-way systems, Long span in concrete, Precast concrete
- Metal/Steel: Frame concepts and systems, frame stabilization, frame connections, long span in steel, floor/roof decking, fireproofing steel
- Masonry and Mortar: Brick Masonry, Concrete masonry, Stone Masonry, Masonry wall construction concepts and details
- Wood: Wood/ lumber basics, wood materials and products, heavy timber construction, light wood from construction- floor wall roof framing
- Exterior Skin Cladding
- Roofing: low slope, steep slope
- Sustainability

REQUIREMENTS AND INSTRUCTIONS:
Students must complete all reading assignments prior to the related lecture. The structure of this course is a combination of lectures and reading assignments. Attendance at all lectures is mandatory. The following values will be given to the evaluation segments of the course: Quizzes 253, Exam #1 253, Exam #2 253, Final Exam 253, Extra Credit max. 6.253
ARCHITECTURE 351--ARCHITECTURAL STRUCTURES
3 Credit Hours, Required Lecture Course, Fall Semester
(Also taught in Summer Session)

DESCRIPTION:
Introduction to statics and mechanics; analysis and design of statically determinate architectural structures using timber and steel systems.

PREREQUISITES:
Certification in Architecture or Construction Management; Math 171 or 206; Physics 101 or 201.

INSTRUCTOR:
Carper

OBJECTIVES:
This is the introductory course to a three-semester required sequence token by students in Construction Management, and a series of five required courses for Architecture students. A sixth and seventh course are available as electives for Architecture students. In this course the foundation is laid: an appreciation for the relevant properties of structural materials and theories of analysis for simple statically determinate structure systems. The basic objective is that the students will be at least as interested in this material at the end of the course as they were at the outset. Emphasis is on architectural applications, so that the students will see how the course material relates to the conceptualization and realization of architectural intentions.

CONTENTS:
• The purpose of a structure system
• Forces on architectural structures
• Structural materials: vocabulary and requirements
• Concept of equilibrium: requirements of a structural system
• Principles of mechanics
• Direct stress applications
• Moments and reactions
• Bending theory: shear and bending moments
• Properties of cross-sections
• Timber design: beams, columns and connections
• Lessons from forensic engineering: failures of timber structures

REQUIREMENTS AND INSTRUCTIONS:
The course meets three times a week for a one-hour lecture (a total of 3 contact hours per week.) Course material is made available through lectures, in-class demonstrations, audio-visuals, assigned readings and homework assignments. The textbook is supplemented by a prepackaged set of photocopied materials. A weekly extra study session is available on the night before quizzes are given.

Grades are based on weekly quizzes and a comprehensive final exam. The quizzes comprise 2/3 of the course grade, with the final exam contributing 1/3. Quality of participation is also rewarded.

Architecture students are concurrently enrolled in a one-credit Structure Systems Studio, Arch 353. Some of the lecture material is reinforced in the Studio, where the emphasis is on design applications and systems integration.
ARCHITECTURE 352 – ARCHITECTURAL STRUCTURES II
3 Credit Hours, Required Lecture Course, Spring Semester
(Also taught in Summer Session)

DESCRIPTION:
Introduction to statics and mechanics; analysis and design of statically determinate architectural structures using timber and steel systems. Continuation of Arch 351.

PREREQUISITES:
Certification in Architecture or Construction Management; Successful completion of Arch 351.

INSTRUCTOR:
Carper

OBJECTIVES:
This is the second course in a three-semester required sequence taken by students in Construction Management, and a series of five required courses for Architecture students. A sixth and seventh course are available as electives for Architecture students. In this course, structural steel analysis and design principles are presented.

CONTENTS:
- Introduction to structural steel
- Design of steel bending members
- Corrosion and fire protection of structural steel
- Steel columns
- Steel connections
- Lessons from forensic engineering: failures of steel structures

REQUIREMENTS AND INSTRUCTIONS:
The course meets three times a week for a one-hour lecture (a total of 3 contact hours per week.) Course material is made available through lectures, in-class demonstrations, audio-visuals, assigned readings and homework assignments. The textbook is supplemented by a prepackaged set of photocopied materials. A weekly extra study session is available on the night before quizzes are given.

Grades are based on weekly quizzes and a comprehensive final exam. The quizzes comprise 2/3 of the course grade, with the final exam contributing 1/3. Quality of participation is also rewarded.

Architecture students are concurrently enrolled in a one-credit Structure Systems Studio, Arch 354. Some of the lecture material is reinforced in the Studio, where the emphasis is on design applications and systems integration.
ARCHITECTURE 353 -- STRUCTURES STUDIO
Credit Hour, Required Studio, Fall Semester

DESCRIPTION:
Design principles of architectural structures systems; available systems for spanning and enclosing architectural space.

PREREQUISITES:
Certification in Architecture or Construction Management; Concurrent enrollment in Arch 351.

INSTRUCTOR:
Carper

OBJECTIVES:
This is the first of two semester-long studios on Structure Systems. The purpose of this studio is to

Architectural Design applications (bending theory, direct stress, elastic and inelastic response.) The primary content is an overview of systems available for spanning and enclosing architectural space. Emphasis is on understanding the behavior of whole systems, testing such concepts as stability through modeling. Integration of structure system with other architectural systems is studied through examples and research assignments. An overriding objective is that the students will discover that selecting and detailing the appropriate structural system is an art-part of the creative process-not merely a mundane analytical science. It is hoped that exposure to examples of creative applications will provide motivation for mastering the relevant technical concepts.

CONTENTS:
- Concept of structural synergy
- Overview of families of structure systems
- Use of scale models for qualitative and quantitative structural analysis
- Checklist for structural system selection: a format for research
- Form-active systems: cables, tents, pneumatics and arches
- Vector-active systems: plane trusses, space trusses and curved trusses
- Bulk-active systems: beams and beam grids, plates and slabs, rigid frames, Vierendeel frames
- Surface-active systems: folded plates, thin shells of single and double curvature

REQUIREMENTS AND INSTRUCTIONS:
The course meets once a week for a two-hour presentation/discussion. There are two sections, so that the enrollment per section is reduced to about 25 students. Course material is made available through lectures, in-class demonstrations and discussions, audio-visuals, assigned research and modeling assignments. The textbook is supplemented by a prepackaged set of photocopied materials and references placed on reserve in the library.

Grades are based on a notebook: assigned systems research papers, models, quizzes and quality of attendance.
ARCHITECTURE 354 -- STRUCTURES STUDIO II
I Credit Hour, Required Studio, Spring Semester

DESCRIPTION:
Design principles of architectural structures systems; available systems for spanning and enclosing architectural space. Continuation of Arch 353.

PREREQUISITES:
Certification in Architecture or Constr. Mgmt.; Arch 353; Concurrent enrollment in Arch 352.

INSTRUCTOR:
Carper

OBJECTIVES:
This is the second of two semester-long studios on Structure Systems. The purpose of this studio is to explore architectural design applications of the principles presented in Arch 351 and 352, the introductory Architectural Structures courses (bending theory, direct stresses, elastic and inelastic response.) The primary content is an overview of systems available for spanning and enclosing architectural space. Emphasis is on understanding the behavior of whole systems, testing such concepts as stability through modeling. Integration of structure system with other architectural systems is studied through examples and research assignments. An overriding objective is that the students will discover that selecting and detailing the appropriate structural system is an art-part of the creative process-not merely a mundane analytical science. It is hoped that exposure to examples of creative applications will provide motivation for mastering the relevant technical concepts.

CONTENTS:
• Concept of structural synergy
• Overview of families of structure systems
• Use of scale models for qualitative and quantitative structural analysis
• Checklist for structural system selection: a format for research
• Form-active systems: cables, tents, pneumatics and arches
• Vector-active systems: plane truss, space truss and curved truss
• Bulk-active systems: beams and beam grids, plates and slabs, rigid frames, Vierendeel frames
• Surface-active systems: folded plates, thin shells of single and double curvature

REQUIREMENTS AND INSTRUCTIONS:
The course meets once a week for a two-hour presentation/discussion. There are two sections, so that the enrollment per section is reduced to about 25 students. Course material is made available through lectures, in-class demonstrations and discussions, audio-visuals, assigned research and modeling assignments. The textbook is supplemented by a prepackaged set of photocopied materials and references placed on reserve in the library.

Grades are based on a notebook, assigned systems research papers, models, homework, quizzes and quality of attendance.
DESCRIPTION:
Advanced architectural design in the context of the city.

PREREQUISITES:
Successful completion of Arch 303 and Arch 309

INSTRUCTORS:
Ascher Barnstone, Hermanson & Kazimee

OBJECTIVES:
The design studio will emphasize complex architectural problems of between 70,000 and 100,000 square feet in an urban context. The studio will focus on the meaning of urbanity, ways to analyze urban conditions, and strategies for resolving structural and architectonic aspects of the design. Each studio will examine theoretical, contextual, cultural, environmental and aesthetic issues. Students should become competent in dealing with large-scale commercial, cultural and institutional buildings.

1. Develop techniques and skills to analyze and write a program for specific functional, environmental and behavioral criteria.
2. Develop the ability to integrate technology in the spatial development of architecture.
3. Develop an understanding for mechanical and acoustical systems as integral parts of design (with special attention to vertical transportation for tall buildings).
4. Develop the ability to design a comprehensive structural system as an integral part of design using complex ordering methods.
5. Incorporate details, material choice, and finishes, as an integral part of design.
6. Develop the ability to work with innovative architectural presentation techniques utilizing any number of available media including the computer, pencil, ink, paints, pastels, and more, for two-dimensional representation and basswood, museum board, metal, plastic, and more for models.

REQUIREMENTS AND INSTRUCTIONS:
Depending on the project complexity and scale, students will work on one or two projects during the semester. Exercises in site/context analysis, program analysis and precedent analysis will be conducted at the start of the project. This work will require field trips, site visits and/or library research. Careful and systematic evaluation of class work will be done throughout the semester. All three fourth-year faculty members will work together to evaluate the design work of each of the three sections. Prompt, complete and on time submissions of the required work is essential to receiving a passing grade (please no incomplete or late work). Students are also expected to be present in the studio at all times during the class hours and to use the class hours to work on the design assignment. Active and effective participation/interaction in the class dialogues and critical discussions will generate a positive learning environment that will help facilitate progress and development.

In case of a family emergency or illness that may prevent the student from attending class the student must present a valid excuse (from a doctor in case of illness) for not being able to attend. Unexcused class absences will be penalized substantially. In addition students are required to read the School of Architecture and WSU Policy Statement-2002 (Student Manual) and comply with all the criteria and appropriate behavioral codes for the design studio as outlined in the manual.
ARCHITECTURE 403--ARCHITECTURAL DESIGN V
5 Credit Hours, Required Design Studio, Spring Semester

DESCRIPTION:

design

Senior studio focused on the design of an urban building with focus on architectural and urban

PREREQUISITES:
Architecture 401

INSTRUCTOR:
Mutin

OBJECTIVES:
The design for the building in the city (Seattle, Chicago, New York etc...) will attempt to provide facilities focused on several activities of daily interest: business, creative arts, (design, arts, theater and architecture) commercial and residential. The project is intended to be the future magnet aimed to attract and inspire people, providing for them a place in which to work, live, congregate, visit to learn and enjoy.

The basic objective is that the students will understand programmatic complexities of an urban building and will be able to apply this ability into a comprehensive building design.

CONTENTS:
- define the quality of the building as an important focal point in the urban fabric and an attractive setting for the surrounding buildings
- relate on a monumental scale a significant building wall to an urban space.
- create an urban architecture, one in which its programs, form, and spaces, enrich the character and experience of urban life while supporting the essential unity of building and place, architecture and the city.
- establish need and place for public amenities
- development of the building within the framework of its urban setting, realizing the role major building programs can have as pivots of urban change, altering and giving shape to the fabric of the city and enriching the experience of civic life
- explore formal imagery and the organization of principal building elements, structure, exterior wall, and building systems in support of the architectural content.

REQUIREMENTS AND INSTRUCTIONS:
The studio meets three times a week for a three and four-hour sessions (a total of 10 contact hours per week.) Studio is taught one on one with periodic lectures, audio-visuals, assigned readings, class discussions and all important class reviews. The aim of the studio is the design of an defined by the given program and understood thru case studies urban project.

Required drawings are: Location plan, Site plan scale of the context model, all plans , all elevations representative sections, three renderings minimum, interior and exterior, model to fit in the site, same scale as the site. building model
Grades are based on the progress of work, quality of case studies, final design of the project and personal growth. Quality of participation is also rewarded.
ARCH 403 - Urban Morphological Archeology (u.m.a.) Design Studio
5 Credit Hours, Required Course Spokane, Spring semester

DESCRIPTION
In the film "The Bicycle Thief" (1972) the acclaimed Italian director Vittorio De Sica's offers an unflinching social critique of working class conditions in Rome after WWII. It depicts a back-wood life behind opulent facades, a network of well used though unadorned inner city alleys, black-markets, one room tenements, charity houses, and dreary modern public housing projects on the outskirts of the city. The film remains a poignant reminder of problems that plague contemporary cities. Today, globalization threatens to exacerbate rather than correct this urban dichotomy (Sassen, 2001; Castells, 1993). Street life filmed by a local Spokane cabbie ("untitled," Wallace Cambell, 1940c, MAC Archive), suggests that Spokane once blurred the lines of such binary oppositions. Now, in Spokane's surface parking lots one sees and hears only shadows and echoes of this. Limited availability of low-middle income inner city housing contributes to a lack of social diversity. Many are homeless. Washington State regional growth projections for Spokane call for more low income housing options (City of Spokane, 2006).

Design Investigation aims, materials, methods and theoretical premises
This community based design study asks, how might an urban architectural design investigation help identify, trace, and mediate the intersection of local and global conditions and forces to benefit public health, safety, welfare and quality of city life? This study examines urban morphology and architectural ecology as they intersect with local and global live-work-play uses and performance requirements in neighborhoods along the Sprague St corridor in the Spokane metropolitan area. The specific focus is on how low-middle income mixed use urban designs can contribute to living a dignified life in the local-global street. The directed indeterminacies of social space and urban village life have specific implications for how architecture frames the network of public, semi public and domestic spaces where social life unfolds (Lefebvre, 1974, 1991; Jacobs, 1961, Herzberger, 1991). Advances in the understanding of traditional urban design techniques vis-a-vis the forces of globalization and new information communication technology (ICT) call attention to new hybrid forms of urban organization, domesticity, artificial ecology infrastructures and landscapes (Easterling, 1999; Bullivant, 2006), as well as indeterminately "distributed workplace" networks (Duffy, 1998; Kishimoto, 2006). In all of this one sees that local and globally scaled urban field conditions (Allen, 1999) and design operations (Corner, 1998; Bullivant, 2005) exhibit 'reciprocal topologies' that can be traced and socially mediated in the design of architectural works. Moving from the square foot scale to that of the city block, to the square mile and then the Spokane-Valley City-Liberty Lake-Coeur d'Alene metropolitan area, the emphasis is on the development of urban morphological archeology design prototypes for a network of socially oriented live-work-play hybrids along the Spraque St. corridor.

REQUIREMENTS:
- Selection of the book and outline of the paper: Mon. Sept. 25th
- Draft of the paper due: Mon. Oc. 30th
- Final paper due: Mon. Dec. 11

Class Presentations: During the class presentation, each presenter shall prepare and distribute a summary of background materials for their presentation (approx. 200 – 300 words in length in addition to illustrations). It is further recommended that the student(s) prepare appropriate visual aids (slides, overhead, power-point, etc.) to supplement their presentation. The presentations will be limited to 15 minutes per person/20 minutes per group.

Evaluation: The student presentation and paper will be evaluated based upon the following criteria.

- **Style** and correctness of writing.
- **Content**: comprehensive exploration of issues.
- **Clarity** of communication: information and concepts.
- **Depth** of interpretation analysis and applications.
- **Quality** of oral presentation skills, including organization, effective use of time and visual aids, etc.
- **Conclusions** and a personal reflections.

Examination: There will be at least one exam given on class lectures and reading materials during the semester.

GRADING

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*includes Class Attendance and Participation*

TOTAL 1003
DESCRIPTION:
Housing and Urban Theory.

PREREQUISITES:
Certification in Architecture, successful completion of Arch 303 and Arch 309

INSTRUCTOR:
Kazimee (Pullman)

OBJECTIVES
Arch 409 will explore critical topics relating to housing from a national and international perspective. This course will address the challenging societal and global issues impacting the design, availability, and affordability of housing. It will advance the understanding of design principles and theoretical concerns of identity, privacy, socio-cultural and environmental factors in the design and development of residential communities. The objective is to provide a theoretical foundation in architecture and urban design for projects in the architecture studio. To balance the studio's emphasis on design and graphic thinking, Arch 409 will focus on reading, critical thinking, written and oral presentation. This course will include presentations by faculty and invited guests, along with reading, self-directed research and class presentations by students.

COURSE REQUIREMENT AND INSTRUCTIONS
The course is structured into two components:

faculty Presentations: This component of the course will encompass a series of lectures on housing and urban development by faculty and invited guests. The reading materials related to the lecture topics will be made available to you during the lectures and you are required to read and write a one page summary of the reading materials and lectures. The length of the summary shall be 300 - 400 words in addition to illustrations (feedback and evaluation will be given on each class summary). A brief synopsis of each lecture and submission dates for summaries are included at the end of this handout.

Student Assignments: Each student shall select and purchase a book to read and use as a vehicle to generate their final paper and oral presentation for this course. This will assist you in building your architectural library. The book selected should address the past, current or future housing issues especially as they relate to the urban context. Select a title from the list provided with this handout, or present another book to the faculty for approval.

Reading: The book reading assignment may be an individual or a group project, but no more than three persons may use the same book in a group. In case of group reading, they may do a team presentation to the class. However, all students are required to submit individual papers covering different aspects of the reading. The subject matter of the paper must be substantial and should focus on the critical discourses prevailing to urban design and housing. The quality and content of the writing must achieve acceptable standard in order to be accepted. You are encouraged to seek writing help through WSU Writing & Tutoring Service at CUE, Room 300, or on line help at OWL.WSU.Edu. The paper shall be 4 to 5 pages (approx. 2000 words in length) 10-point, spaced at 1 1/2. Illustrations are in addition to the 4 pages minimum. During the semester you are required to submit an outline and draft of the oaoer for review and feedback before the final submission of your paper. The due dates for paper draft and final submissions are as follows:
I)
It
ARCHITECTURE 432 – Environmental Controls I
3 Credit Hours, Required Lecture Course, Fall Semester

DESCRIPTION:

Environmental Controls is the study of how buildings respond to climate. The goal of building systems design and construction is to create a functioning, reliable and comfortable space – human comfort is a subject that we will be revisiting many times throughout this two-course ECS sequence. The first half of the course, ECS-1, looks at smaller buildings and how they might be built to effectively and responsibly respond to a given climate. The second half of the course ECS-11 looks at larger buildings and how they might be designed to maximize comfort and control and how they can be designed to use resources as wisely as possible.

PREREQUISITES:
Certification in Architecture or Construction Management

INSTRUCTOR:
Toytor

OBJECTIVES:
By the end of ECS-1, each student should have a working knowledge of how smaller buildings respond to climate and how mechanical, electrical, lighting, water and waste systems can be integrated.

It is hoped that our class will not be limited to the creation of comfort in buildings, but to go a step further, and seek out delight in buildings. Rather than thinking of buildings and spaces in purely spatially perceptive terms, the study of ECS asks designers and builders to think with the other senses. Temperature, humidity, air movement, acoustics and light quality (even smell!) are very real measures of comfort in a space. Our class is focused on how these empirical quantities can be used to help create comfortable spaces and sensually pleasing places to be.

CONTENTS:
The course is roughly divided into four parts:
- Design guidelines for climate response and sustainability
- Building systems calculations and envelope design
- Passive and active systems with emphasis on sustainability
- Building systems design and integration

REQUIREMENTS AND INSTRUCTIONS:
All classes are mandatory; attendance is required at all class meetings. Work should be completed on time and submitted in a professional manner. Feedback is in three forms: quizzes 203, homework assignments 403 and group projects 403. No exams will be given.

The homework and projects require good writing skills and clear presentation style. Everything that you submit in our class should be done in a professional manner. Unclear, incomplete or "sloppy" work will be heavily penalized; clear, complete and neat (professional) work will be significantly rewarded. Projects will be done in self-selected groups of three or four. All projects will have aspects pertaining to both architecture and construction management, so it is strongly encouraged that your team be made up of both disciplines. Construction managers and architects work closely on projects in the industry – understanding this relationship is part of the motivation behind the group projects.
Textbook: *Mechanical and Electrical Equipment for Buildings*, by Reynolds and Stein, 3rd edition
ARCHITECTURE 433 - Environmental Controls II
3 Credit Hours, Required Lecture Course, Spring Semester

DESCRIPTION:
ECS-2 looks at larger "load dominated" buildings. The building systems approach changes drastically. The process gets even more complicated when a building grows vertically. Multi-story buildings have system design constraints that strongly influence space layout and building construction. The course will look at how codes and regulations affect design and how to make systems that not only meet code, but exceed code and performance standards.

PREREQUISITES:
Certification in Architecture or Construction Management, ECS I

INSTRUCTOR:
Taylor

OBJECTIVES:
The principal concept in ECS II is human comfort. The systems that help to ensure comfort in larger buildings are much more complex than those for smaller buildings. The course will cover specific systems for heating and cooling, lighting, water and waste, fire protection and conveyance, but more importantly, we will examine how these systems are integrated into buildings. How these systems come together to form a complete, functional, efficient environment control system is the prevailing focus of this course.

CONTENTS:
- Part I: Introduction to Load Dominated Buildings - What systems need to go into a building and where do they go?
- Part II: Energy Predictions and Design Case Studies - How do we know how much "service" our building will need?
- Part III: Lighting Design - How do we blend daylight and electric light into a space?
- Part III: The Big Divisions: 14, 15 and 16 - What do typical mechanical, electrical, controls and transportation systems look like?
- Part V: Systems Integration: High-performance Buildings - Who does it right? And... what did they do? How can I do that?

REQUIREMENTS AND INSTRUCTIONS:
All classes are mandatory. Work should be completed on time and submitted in a professional manner. Homework and quizzes will introduce concepts and knowledge. The project will put that knowledge into practice. The course focuses on building design and construction and how to make "ECS" factor into each step of the process. The project will echo this teaching approach. We will design systems for a building from the early conceptual stage all the way through design development. Sustainable design will be our focus. Projects will be done in self-selected groups of three or four. All projects will have aspects pertaining to both architecture and construction management, so it is strongly encouraged that your team be made up of both disciplines. Construction managers and architects work closely on projects in the industry – understanding this relationship is part of the motivation behind the group projects. The homework and projects require good writing skills and clear presentation style. Everything that you submit in our class should be done in a professional manner. Unclear, incomplete or "sloppy" work will be heavily penalized; clear, complete and neat (professional) work will be significantly rewarded.

Grading: Quizzes 203, Homework 303, team projects 503  The following table breaks down the grading into its parts.

Textbook Mechanical and Electrical Equipment for Buildings, by Reynolds and Stein, 10th edition
ARCH 472 - CODES AND COMMUNICATIONS  
3 credit hours, Required Lecture Course, Fall Semester  

DESCRIPTION:  
Studying the 2006 International Building Code and supporting documents as a means to provide designers understanding of minimum requirements to safeguard the public health, safety and general welfare.

INSTRUCTOR:  
Burnett

CONTENTS:  
Building codes provide the minimum requirements for safe design and construction. It is fortunate that in the United States designers, engineers, code enforcement officials, industry organizations and government bodies all have input in writing building codes. Building codes are not dictated by a government agency. They are written by private, non-profit model code organizations. We study the 2006 IBC as it relates to the design process and practical issues as it relates to plan review. The ICC (publisher of the IBC) addresses national issues that affect local building officials, and is responsible for a host of other international model codes. Our focus is code theory and practical use as it relates to the practice of professional design.

REQUIREMENTS AND INSTRUCTIONS:  
We operate in a lecture mode between two TV class rooms; one in Spokane and one in Pullman. The lectures focus on topics within the 2006 International Building Code and supporting documents as a means to provide designers a sense of how to understand the code application process by first reviewing each major chapter, then applying them in several design scenarios. Actual building projects are studied in context, along with varying pion review interpretations. Guest lecturers cover specialized topics, such as sprinklers, and city building departments.

We have a daily, closed reference quiz question on assigned code book reading and commentary. The supplemental reading and commentary is provided via the web based blackboard system, which also collects daily assignments. The concepts build. First we look at occupancy (chapter 3), followed by basic heights and areas (chapter 5; the building envelope), on to types of construction (chapter 6), and so on. We also address existing buildings (chapter 34 & the IEBC) in applying code concepts.

We have several invited lectures, which include local building code officials from Spokane and Pullman, the chief Spokane Building Re Prevention engineer, WSU Code Compliance and Quality Control Officer, and primary U.S. Director of Education from the Fire Sprinkler Association.

Open reference tests are short answer and multiple choice requiring "look ups" to provide code references as to the source of the correct answer. The student has to know "where in code, the answer is found" as well as the logical sequence of references that may lead to specific or multiple "right answers" and interpretations. The student needs to know their "way around the code book" and how to extract specific data.
Third Review Present revised diagrams, images, and models. Include more developed model and drawings at min. 1/32 scale (plans, sections, elevations, and 30) of your design.....See final exam requirements for more specific requirements. Have your committee members present at this review.

Fourth Review Present revised design at min. 1/16 scale. Include all parts of your presentation: diagrams, images, models, text, and drawings. It's very important to be complete as this is the last review before you begin final exam drawings and models. Have your graduate committee present at this review.

Arch. 511 Final Exam The exam is composed of two parts:
1. Graphic presentation includes drawings, images, supplemental text, and model of your design solution.
2. Oral presentation includes explanation and defense of graduate project intentions. Your committee will ask questions to determine how much you know about your graduate topic.

Graphic presentation should be complete and in final draft form – model can be made of chip board and drawings can be hard-line on trace. Both must be at the scale and accuracy of presentation quality drawings and models (which are due during the fall semester in Arch. 513). See attached minimum requirements for list of required drawings, models, and diagrams. You are responsible for having your committee members in attendance. They all have to be there.
ARCHITECTURE 511 - GRADUATE DESIGN PROJECT

6 Credit Hours, Required Studio Course, Spring Semesters

DESCRIPTION:
Final graduate design studios focusing on individualized topics.

PREQUISITE:
Arch 403

INSTRUCTOR:
Hirzel (Coordinator), Mutin, Ascher-Bamstorn, Rahmani

OBJECTIVES:
To provide an experience that will challenge your patience, imagination, and confidence.
To provide an opportunity to expose your creative impulses, your center self......find a way to make architecture and landscape that will give people joy and hopefulness about being in the world. To reveal how it feels to resolve the forces of beauty, technology, context, and use......how this process might be lubricated with skill and passion.

CONTENTS:
To place Arch. 511 in context, I see the past semester in Arch. 515 as beginning the quest – research and definition of an architectural problem that you believe needs fixing. Arch. 511 is seen as the "building/site design semester" where you focus on applying your research to a building solution that improves on the existing negative conditions you have identified. Arch. 513 next fall is the "publication/presentation semester", where you produce final drawings, models, and diagrams, complete your manuscript, and design a presentation for a more public venue than your design committee.... This may take the form of a public exhibition, media event, workshop, seminar, video, "take it on the road", etc. that communicates your expertise in your particular topic. The idea here is that you will be producing a media event that is relevant to a public – people beyond the walls of Carpenter....i.e. school boards, other architecture schools, the AIA, commercial developer, manufacturers, etc.... your work will need to be formatted in such a way as it will be easily accessible to this new audience. A critical part of this endeavor will be finding the appropriate context and audience to present your particular topic.

REQUIREMENTS AND INSTRUCTIONS:
First review Provide in a unified presentation format:
1. Presentation quality vicinity model with context.
2. Base drawings (section/elevation and plan) at 1/16 scale showing adjacent buildings, contours, trees, lights, sidewalks, streets, etc. Presentation quality with line weights, etc.
3. Vicinity map showing larger context with site located.
4. Site photos and location of where photos were taken.
5. Boards that succinctly illustrate what needs to be fixed (the problem), what you looked at as a source for fixing what needs to be fixed (precedents), and how you plan to fix it - what are the rules you will use to fix it? (your method).

Second review Five day charrette "rock and roll" to get the juices flowing......
1. Create multiple abstract study models (at scale of your vicinity model).
2. Provide diagrams and images that explain your design intentions and rationale regarding how you have responded to your rules.
3. Include how structure, materials, construction systems, functional organization (rooms and circulation), relationship to context (earth, sky, street, etc), and composition (articulation of parts, scale and proportion, and degree of spatial complexity/richness) support your design solution.
DESCRIPTION:
In this studio M Arch students work primarily with the studio instructor, and also with the students M Arch committee, to build on research into a design topic documented by each student in a predesign monograph. The predesign monograph is developed the prior semester in ARCH 515 Research Methods and Programming also in consultation with the students M Arch Thesis committee.

PREREQUISITES:
Graduate standing, completion of arch 515

INSTRUCTOR:
Abell (Spokane)

OBJECTIVES:
Emphasis in the 511 Studio is on architectural design as a form of scholarly creative research to satisfy qualitative and quantitative programmatic goals and performance requirements for design.

CONTENTS:
Critical design modeling and simulation serve as vehicles of design speculation, experimentation, thought and experience. Design activity is undertaken as a form of practice and a form of praxis. Practice based experimentation emphasizes direct material experimentation and insights drawn from this. Praxis emphasizes the reciprocal material and theoretical dimensions of the design investigation, and critical insights drawn from this relationship. Praxis and critical practice are terms that indicate an investigative and experimental approach to design that begins by asking fundamental questions about the conditions of the design problem at hand, the social, cultural, technological and historical-theoretical conditions of the problem. While critical practice and conventional practice may share a similar object of investigation (the building), there are differences in the way the object is investigated and problematized. Emphasis in the M Arch design studio is on inventive material techniques, instrumental design strategies, significant building design practices, substantive historical-theoretical design precedents, and the skillful elucidation and communication of they intersect.

AND INSTRUCTIONS:
REQUIREMENTS
Studio Design Research Stages and Requirements
Preliminary Design & Critical Simulation Investigations: Experimental investigation (2-d, 3-d, 4-d), generative diagrammatic modeling strategies, organizational patterns, behavioral systems, conceptual performance, instrumental creative practices and methods.
Schematic Design & Critical Simulation Investigations: Tectonic investigation of formal architectonic strategies based on the major programmatic issues, activities and occupancies, - specific material technologies, strategies for integrating structure, envelope, circulation, massing, site.
Third Review Present revised diagrams, images, and models. Include more developed model and drawings at min. 1/32 scale (plans, sections, elevations, and 3D) of your design..... See final exam requirements for more specific requirements. **Have your committee members present at this review.**

Fourth Review Present revised design at min. 1/16 scale. Include all parts of your presentation: diagrams, images, models, text, and drawings. It's very important to be complete as this is the last review before you begin final exam drawings and models. **Have your graduate committee present at this review.**

Arch. 511 Final Exam The exam is composed of two parts:
1. Graphic presentation includes drawings, images, supplemental text, and model of your design solution.
2. Oral presentation includes explanation and defense of graduate project intentions. Your committee will ask questions to determine how much you know about your graduate topic.

Graphic presentation should be complete and in final draft form – model can be made of chip board and drawings can be hard-line on trace. Both must be at the scale and accuracy of presentation quality drawings and models (which are due during the fall semester in Arch. 513). See attached minimum requirements for list of required drawings, models, and diagrams. **You are responsible for having your committee members in attendance. They all have to be there.**
ARCHITECTURE 513 - GRADUATE DESIGN PROJECT
6 Credit Hours, Required Studio Course, Fall Semester

DESCRIPTION:

Anal graduate design studios focusing on individualized topics.

PREQUISITE:

Arch 511

INSTRUCTOR:

Hirzel (Coordinator), Mutin, Ascher-Barnstom, Rahmani

OBJECTIVES:

To provide an experience that will challenge your patience, imagination, and confidence.
To provide an opportunity to expose your creative impulses, your center self....find a way to make architecture and landscape that will give people joy and hopefulness about being in the world. To reveal how it feels to resolve the forces of beauty, technology, context, and use......how this process might be lubricated with skill and passion.

CONTENTS:

The description of an architectural problem that you believe needs fixing. Arch. 511 is seen as the "building/site design semester" where you focus on applying your research to a building solution that improves on the existing negative conditions you have identified. Arch. 513 next fall is the

complete your manuscript and design a presentation for a more public venue than your design "publication/presentation semester", where you produce final drawings, models, and diagrams, committee.... This may take the form of a public exhibition, media event, workshop, seminar, video. "take it on the road", etc. that communicates your expertise in your particular topic. The idea here is that you will be producing a media event that is relevant to a public - people beyond the walls of Carpenter - i.e. school boards, other architecture schools, the AIA, commercial developer, manufacturers, etc.... your work will need to be formatted in such a way as it will be easily accessible to this new audience. A critical part of this endeavor will be finding the appropriate context and audience to present your particular topic.

First review: Provide in a unified presentation format:
1. Presentation quality vicinity model with context.
2. Bose drawings (section/elevation and plan) at 1/16 scale showing adjacent buildings, contours, trees, lights, sidewalks, streets, etc. Presentation quality with line weights, etc.
3. Vicinity map showing larger context with site located.
4. Site photos and location of where photos were taken.
5. Boards that succinctly illustrate what needs to be fixed (the problem), what you looked at as a source for fixing what needs to be fixed (precedents), and how you plan to fix it - what are the rules you will use to fix it? (your method).

Second review: Five day charrette "rock and roll" to get the juices flowing......

1. Create multiple abstract study models (at scale of your vicinity model).
2. Provide diagrams and images that explain your design intentions and rationale regarding how you have responded to your rules.
3. Included how structure, materials, construction systems, functional organization (rooms and circulation), relationship to context (earth, sky, street, etc.) and composition (articulation of parts, scale and proportion, and degree of spatial complexity/richness) support your design solution.
- Flerchinger, B. Indeterminacy and the Community Design Center, WSU M Arch, 2004.
- Weise, R. Raceway; The Phenomenology of Speed, WSU M Arch 2004.
ARCHITECTURE 513 GRADUATE DESIGN PROJECT (Spokane)
6 Credit Hours, Required Studio Course, Spring Semester

DESCRIPTION:
This studio builds on Arch 511 Design Studio research into a design topic in consultation with the students M Arch Thesis committee, and predesign research initially documented by each student in a predesign monograph, developed in ARCH 515 Research Methods and Programming, also in consultation with the students M Arch Thesis committee.

PREREQUISITES:
Graduate standing, completion of arch 511

INSTRUCTOR:
Abell (Spokane)

OBJECTIVES:
As in ARCH 511, emphasis in the 513 Studio is on architectural design as a form of scholarly creative research. Critical design modeling and simulation serve as vehicles of design refinement.

CONTENTS:
Greater emphasis in the 513 design studio is on refinement and coherence among path-space relations, plan-sectional qualities (raumplan), tectonic envelopment, terracing and roofing, social space, perspectival relationships, symbolic expression, atmosphere, day lighting, building systems, and site relationships, the satisfaction of qualitative and quantitative programmatic goals and performance requirements and coherence among these. This semester also includes skillful elucidation of these concerns in the final design presentation, (final models and analytical drawings), and the oral and written communication of the design process and final design results in the final public exhibition and presentation and in the hard bound M Arch design monograph.

REQUIREMENTS AND INSTRUCTIONS:
Studio Design Research Stages and Requirements
Final Tectonic investigations: Formal architectonic strategies based on the major programmatic issues, activities and occupancies, - specific material technologies, strategies for integrating structure, envelope, circulation, massing, site.

ARCH 513 Design Studio Spokane Final Results & Monograph examples:
Bleistein, V. Storm Survivor Architecture; Diaspora, Identity and the Probable Storm. 2006.
Shockey, K. The Technologies of the Skin and the Urban Health Spq. WSU M Arch 2006.
Poppe, A. Between Old and New Architecture. WSU M Arch 2006.
Love, A. Framing Aesthetic Experience and Well Being in the Expanded Field of Relations between Art, Architecture and Natural Landscape. WSU M Arch 2006.
ARCHITECTURE 515 - RESEARCH METHODS AND PROGRAMMING (Spokane)
3 Credit Hours, Required Lecture Course, Fall Semester

DESCRIPTION:
Recent architectural design monographs such as Event-Cities 1994, SMLXL 1996, Gyroscopic Horizons 1999, Animate Form 1999, and Phylogenesis foa’s ark 2003 and NOX Machining Architecture, 2004 are noteworthy examples of a long and rich tradition of design invention, discourse and scholarship in architecture. This trajectory includes earlier modern documents such as L’Esprit Nouveau and Vers une Architecture (1923) and The Modulor (1954) by Le Corbusier, as well as Citta Nuova on Italian Futurists (1913-1914), and La Cite Industrielle 1904-1918 by Garnier. These echo earlier treatises by Ruskin, Semper, Alberti, Vitruvius, etc. All offer examples of the way the architectural design monograph or catalogue raisonée serves to advance inventive ways of dealing with common problems and to identify new problems, as well as strategies, processes and techniques of design. Critical contemporary monographs demonstrate that programmatic and goal oriented thinking forms the basis of research into the conditions in which architectural design problems arise, into design strategies and tactics for dealing with design problems. This includes research into user and audience values, preferences and performance requirements identified with design problems and how they intersect with social and environmental concerns. The monographs, the manifesto, the program, the folio and the exhibition are interimplicated in the way we see the world, the way we occupy space, and the way we value, interpret and judge architecture. Accordingly, ARCH 515 expands on the critical function of the design program in creative and scholarly design activity.

PREREQUISITES:
Graduate Standing

INSTRUCTOR:
Abell (Spokane)

OBJECTIVES:
ARCH 515 is the first of a three course, three semester sequence in which the M Arch project is developed and documented (ARCH 515-ARCH 511-ARCH 513). The first objective of ARCH 515 is to develop an advanced understanding of pre-design research methods and architectural programming. The second objective is to develop an advanced understanding of the overlapping relationship between pre-design research, theory and critically creative design activity. This relationship defines the critical practice of architectural design as a unique form of creative scholarship. This involves the definition and ‘production’ of the design problem, understanding and modeling the conditions of the problem, gouging the preferences and preoccupations of the ‘audience’ for the design, the development of design goals and performance requirements, the identification of instrumental design strategies, material techniques and formal principles for further testing and refining through design. The third course objective is to apply pre-design research and architectural programming methods to produce the predesign monograph that forms the basis of the design studio (ARCH 511) investigation. With further elaboration in the ARCH 513 studio the investigation culminates in a final design and a final hard bound M Arch monograph.

CONTENTS REQUIREMENTS AND INSTRUCTIONS:
ARCH 525 2 Credit Hours, Required Graduate Course, Spring Semester

DESCRIPTION and OBJECTIVES:
The purpose of this course is twofold.

- The first is to explore and identify topics that seem on the periphery of architecture in order to determine if they have actual significance to the work of architects. Examples may include current political and social conditions or global economies and population. Students will be responsible for selecting a specific topic, conducting research and then presenting their finding through graphic, verbal and written form.

- The second is to determine methods and means by which this information may be disclosed and distributed so that others can become aware of these issues.

INSTRUCTOR:
Kessler

CONTENTS:
This course will be structured in a studio format where students will be working in teams of two on particular topics. Each team will be responsible for graphic, verbal and narrative presentations of their selected topics at the end of the semester. Each team will be presenting their findings at the end of the semester to all first and second year students in a symposium format.

Part I: The first several weeks of the course will be devoted towards reading two books. The first is Thomas Friedman's book The world is Flat and the second is David Orr's book The Last Refuge. Each book is available at Crimson and Gray. Friedman's book is also available at most book stores. A third book which is highly recommended is Fast Food Nation by Eric Schlosser. These books will form the foundations for our discussions and selection of topics.

Part II: The second part of the course will focus upon presentations by faculty and students. Typically each Tuesday will be devoted to selected topic presentations by faculty and Thursday's will be devoted towards student presentations and discussions.

Participation: All students are required to attend class each week and participate in all assignments.

Grading: Grades for the course will be distributed on the following basis.

- 30% graphic presentation
- 30% verbal presentation
- 30% narrative presentation
- 10% enthusiasm and joy

Students with Disabilities: I am committed to providing assistance to help you be successful in this course. Reasonable accommodations are available for students with a documented disability. Please visit the Disability Resource Center (DRC) during the first two weeks of every semester to seek information or to qualify for accommodations. All accommodations MUST be approved through the DRC (Admin Annex Bldg, Rooms 205). Call 509 335 3417 to make an appointment with a disability counselor.
DESCRIPTION:
Disciplinary theories always draw from the philosophical foundations of the times in which they emerge and thrive. The twentieth century is no exception. Therefore, to comprehend 20th-century architectural theory, this course looks at the 3 major philosophical streams of thought active at the dawn of the 20th century and considers how they affected all subsequent theory in the field of architecture during the century. The three streams are: Positivism, Linguistics, and Consciousness. These terms will be defined in class, but suffice it to say here how each informs architectural theory:

• Positivism: emphasizes prescriptive architectural theory
• Linguistics: emphasizes 1) forms that are syntactically conceived, 2) forms having “deep structure,” and 3) forms enabling or emblematic of communal meaning
• Consciousness: results in 1) expressions of zeitgeist, 2) subjectivist-driven forms

CONTENTS:
Course Structure. Meetings are once per week, scheduled for 3 hours each session. Scheduled readings are to have been read by the start of the class. No single class textbook. All readings will be available to you in PDF form.

1. Introduction (positivism, linguistics, consciousness; what is theory)
2. Lecture/discussion format. Sometimes there may be student presentations.

REQUIREMENTS AND INSTRUCTIONS:
Course Structure. Meetings are once per week, scheduled for 3 hours each session. Scheduled readings are to have been read by the start of the class. No single class textbook. All readings will be available to you in PDF form.

Text:
2. TND Manual (Institute of Transportation Engineers, 1999) — Read first 13 pages only.
3. Le Corbusier, Regulating Lines (from Towards a New Architecture, 1927)
6. McCracken, Diderot Unities and the Diderot Effect (from Culture and Consumption, 1990)
9. McCracken, Diderot Unities and the Diderot Effect (from Culture and Consumption, 1990)
11. Hegel, excerpt from Phenomenology of Spirit (1807)
12. Heidegger, Building Dwelling Thinking (from Basic Writings, Harper, 1993)
14. Wang/Keen, Intentionality and the Production of Architectural Designs (from EAP, vi 12, no 3, Fall 2001)
15. Francis-Vioch, Four Dalmatian Towns (from Seamos and Muggerauer, Dwelling Place)
17. Tschumi, Architecture, 1987

PREREQUISITES:
Graduate Standing

INSTRUCTOR:
Wang
ARCH 527 – SITE PLANNING
3 Credit Hours, Required Lecture Course, Fall Semester

PREREQUISITES:
Graduate standing and Arch. 403

Description:
An overview of site planning principles and their application from both an aesthetic and functional perspective.

INSTRUCTOR:
Hirzel

OBJECTIVES:
1. Provide clarification of individual and collective values regarding building/site relationships.
2. Develop awareness of the message potentials of integrating water, vegetation, and topography into building design.
3. Provide design strategies for the innovative, appropriate inclusion of landscape elements into both the site and building.
4. Provide an understanding of the functional determinants inherent in the manipulation of landscape.
5. Provide evaluation procedures for determining site design performance based on aesthetic, symbolic, and functional criteria.
6. Develop simulation techniques for effectively communicating site planning intentions.

CONTENTS:
Weeks 1 and 2: Introduction of historic attitudes expressed by building/landscape relationships. Explore personal and collective views of preferred building/landscape relationships.
Weeks 3-5: Introduction of site analysis techniques - traditional (quantitative data gathering) and non-traditional (qualitative, intuitive methods).
Weeks 6-8: Introduction of site planning principles (aesthetic perspective). Explore uses of water, vegetation, and topography as both compositional and experiential design elements.
Weeks 9-11: Introduction of functional aspects of site planning - zoning and setbacks, parking, handicap requirements, soils and grading (drainage), site engineering, and environmental restrictions.
Weeks 12-14: Review site planning sections of Architecture Registration Exam (ARE) - Pre Design Division: Environmental Analysis and Site Planning Division: Site Analysis and Site Design Vignettes.
Week 15: Design reviews of final project.

REQUIREMENTS AND INSTRUCTIONS:
1. Individual readings will be assigned from the books listed below as well as current articles from architecture and landscape journals.
2. There will be a mix of lecture, discussion, and project reviews. Field trips, slide and video presentations will also be included.
3. Attendance and participation in class discussion is an essential part of the course.
4. There will be 4 short illustrated essays (500 words) that combine both graphic and written product with a focus on Landscape/Building Attitudes, Site Analysis, Site Design from the Aesthetic Perspective, and Site Design from the Functional Perspective.
5. A Final Project will synthesize the four above projects. The product will be a scaled three-dimensional model with a written design rationale.
ARCHITECTURE 530 - GRADUATE THEORY
3 Credit Hours, Elective Course, Fall Semester, Pullman/Spokane

DESCRIPTION:

This is the core theory course for all graduate students in the DDes, MS Arch, MSLA and MID programs. Although slight adjustments are made for DDes candidates as well as "4+1" ID candidates, the course content is the same.
Rather, the aim is to teach a theory of theory; that is, characteristics that all theories share regardless of discipline. The ultimate aim, then, is to equip students with the tools to build theories of their own in whatever future disciplinary context they find themselves. In all of the above, a goal of equal importance is to improve student writing ability. It is the conviction of this instructor that good writing ability is in itself evidence of the ability to think and conceptualize clearly. Put another way, if you don't write well, there is little indication that you actually understand the material of the course.

CONTENTS:
Why Theory?
- Robert Gutman, "Why Don't the Rest of Us Like the Buildings the Architects Like?"
- Pine and Gilmore. "Welcome to the Experience Economy" in Harvard Business Review
What Theories Do and How They Do it.
- Rohinton Emmanuel. "Urban Heat Island and Cooling Load: The Case of an Equatorial City"
- Adrian Forty, "The Home" in Objects of Desire. (London: Thames and Hudson, 1992), 94-119
What Theories Are
- J.B. Jackson, "The Westward Moving House" Landscapes: The Selected Writings of J.B.Jockson
What Theories Do and How They Do it.
Theory and Culture
- Kuhn - Structure of Scientific Revolutions

REQUIREMENTS AND INSTRUCTIONS:
Class format: I will lecture as course content requires. Then, the class will usually be seminar format.
Grading First paper 203; Mid Term exam 403; Final paper 403
ARCHITECTURE 531 - ADVANCED TECTONICS
3 Credit Hours, Required Lecture Course, Fall Semester

DESCRIPTION:

Arch 531 is a graduate level course in architectural tectonics. It will deal with historic and contemporary aspects of tectonics through theory and practice. The focus of the class will be to first provide an historic foundation upon which to discuss the contemporary issues related to architectural tectonics. This course has been developed for students with a strong foundation in materials and construction, history and theory. The course will explore the poetic craft of making and tectonically integrating the core essences of building- materials, systems, structure, environmental response,

PREREQUISITES:
Graduate level standing in architecture, arch 330 or equivalent

INSTRUCTOR:
Keane

OBJECTIVES:
Arch 531 is designed as a graduate seminar. Its aim is to expand the student's knowledge base by exploring the critical aspects of architectural tectonics in historic and contemporary practice through reading, discussion, writing and presentation. The schedule is designed to permit and encourage in-depth investigation of the material explored. It is expected that the students will take on leadership and management roles while developing and defending a clear thesis on a practical philosophy of tectonics. By the end of the course the student will understand the role and implication of tectonics in critical practice and be conversant with critical investigation in cutting edge developments related to tectonics.

CONTENTS:
- Tectonics-definitions, concepts, role in architecture, critical practice, sustainability
- Historic concepts/ approaches to tectonics
- Critical aspects of tectonics in history
- Contemporary concepts/ approaches to tectonics
- Critical aspects of contemporary tectonics
- Investigations into contemporary critical literature on tectonics

REQUIREMENTS AND INSTRUCTIONS:
Students must complete all reading assignments prior to the related seminar. The structure of this course is a combination of reading assignments, presentations and discussions. Attendance at all classes is mandatory. There will be opportunity to work collaboratively. The format of the class will require leadership roles

The following criteria will be addressed in the grading components: Presentation and defense of student's thesis; Student's ability to identify critical points/concepts; Quality, content, design of research documentation; Quality, content, design of presentation; Effort made to initiate discussion and 'lead'; Professionalism; Attendance and time management.
ARCH 531 - ADVANCED TECTONICS (Spokane)

3 Credit Hours, Required Lecture Course, Fall Semester

DESCRIPTION:
tee-ton [tek tan' ik] adj. [LL tectonicus, Gr tektonikos, tekton, carpenter, builder: see TECHNIC] of or having to do with building; constructional architectural designating, of, or pertaining to changes in the structure of the earth's crust, the forces responsible for such deformation, or the external forms produced
tech-nic (tek'nik; also tek nek') adj. Gr technikos < techne art, artifice < IE base *teckth-, to weave, build, join> Gr tecton, carpenter, L texere, to weave, build] TECHNICAL-n. 1TECHNIQUE2 the study or principles of technology, an art, or the arts

Advanced Tectonics begins with basic questions, and strives to sustain these questions throughout the course. What is tectonic architecture, can architecture not be tectonic, and how might architecture be woven, joined and superimposed? How might space be plied? How might form be handed? Is architectural making opposed to architectural thinking? Rather than attempt to provide a single perspective on the question of tectonics in architecture the aim of the course is to sustain questions concerning what tectonics means to the history, theory and contemporary practice of architecture. The course opens up various dimensions of the topic to develop an advanced understanding of the relations between the theory of tectonic architecture and the materiality of architecture.

PREREQUISITES:
Graduate standing in architecture, arch 330 or equivalent

INSTRUCTOR:
Abell (Spokane)

OBJECTIVES:
Course seminars draw from a variety of sources and perspectives. The course involves the application of this knowledge to identify tectonic strategies in recent works, to contextualize, evaluate and interpretation contemporary ideas on tectonic expression. Another course objective focuses on how tectonic concerns inform ones own work as a designer and how this question may be formally incorporated in the students M Arch design investigation.

CONTENTS, REQUIREMENTS AND INSTRUCTIONS:
- Reading Material Assignment & Presentation #1. Student groups present assigned readings in seminar. Each group makes a 25 minute power point presentation on the assigned reading.
- Reading Assignment & Research Paper Presentation #2, #3, #4, and #5. Each of these assignments has two parts. The first part is a group Power Point presentation summary of the assigned reading. For the second part of each assignment each student writes a 1,000-1,500 word research paper with illustrations and presents in seminar (power point) the student's reasoned opinion about a work of architecture appearing in the last twenty years not discussed in the reading but emphasizing the major points and principles of the reading.
- Final Assignment #6, Independent Research Paper on M Arch Graduate Project. The final assignment is a 2000 word illustrated paper presented in seminar. The paper involves expressing a reasoned opinion about a tectonic issue that is central to the students M Arch topic and advancing tectonic principles and strategies in view this. Independent research and ideas drawn from several course readings must be substantively related and incorporated into the paper.
ARCHITECTURE 540 - RESEARCH METHODS
3 Credit Hours, Elective Lecture Course, Spring Semester Pullman/Spokane

DESCRIPTION:
This is the research methods course for the MSArch, MID, MSLA and DrDes degrees in Spokane. For students in Pullman, you may have other options to fulfill this requirement. Please check with your advisor(s) to confirm. This course introduces students to a range of research methodologies, ranging from experimental to interpretive. These methodologies are common to many non-design disciplines; here, the aim is to apply these methods to design.

In this course, "design" is understood as a noun and not a verb, which differs from convention in the design disciplines, where "design" is usually related to the question, "What to do?" (verb). In this course, "design" is almost exclusively related to the question, "What is the case?" (noun). Consider the topic of senior housing. The verb approach would stress "How should we design this nursing home?" But the noun approach would investigate the nature of nursing homes in general. Usually, design-as-verb leads to single objects. Design-as-noun leads to explanatory systems. Research methods for design helps in framing these explanatory systems and, in turn, helps in design process.

PREREQUISITES:
Senior or Graduate Standing in Architecture, Interior Design or Landscape Architecture

INSTRUCTOR:
Wang

CONTENTS:

AND INSTRUCTIONS:

REQUIREMENTS
Course Structure. Meetings are once per week, 3 hours each session. Instructor will present new material in lecture format for the first portion of each session; assigned readings must be read by the day the class meets. (To do well in this course, you must master the readings). The remaining portion of each session will consist of class exercises, discussion, etc. Starting April 10, there will be no more group meetings; all sessions will be individually scheduled for the purposes of framing the Major Paper. Major Paper progress summaries will be updated by the instructor weekly for all to see.

Readings and Class Text. The required text: Architectural Research Methods, Linda Groat and David Wang (Wiley, 2002). This text should be available at the Bookie in Spokane and Pullman. Several copies are available through Griffin, or interlibrary loan. All other readings will be provided as PDFs on a disk given you at the beginning of the semester. (See Readings List)

Blackboard. Class material (e.g., powerpoints, etc) will be available for you to download on the Blackboard site for this class. Go to: 

Grade. There will be three measures: 1) Minor paper 203, Midterm Examination 303 (makes extensive use of the readings), Major Paper 403. In addition, instructor holds 103 discretion for attendance, participation, originality of thought, and other contributions to the success of the class.

Semester Overview. Please refer to Readings Schedule and Readings List handed out separately for more detailed information on class schedule and content.
ARCHITECTURE 542--ARCHITECTURAL CRITICISM

3 Credit Hours, Required Course at the Graduate Level, Fall Semester

DESCRIPTION:

PREREQUISITES:

Introduction to rhetoric and methods of critical writing and thinking.

Students have to be enrolled in the Masters Program.

INSTRUCTOR:

Rahmani

OBJECTIVES:

The objective of the class is twofold. On the one hand it is to sensitize students as to the role that criticism plays in shaping architecture and how architects use this discourse to constantly enter into a contract with society and improve their work. Part of this first objective is the teaching of methods by which judgment can be achieved and negotiated between critic and audience. But of course without a clear and engaging narrative, criticism can either degenerate into a rant or be so confusing as to be irrelevant. And so the second objective of the course has to do with focusing on the art of critical writing, which includes the method by which to achieve a convincing sentence and ultimately an articulate point.

Criticism is central to the discipline of architecture but it is even more relevant to the intention of a Masters degree. For here it is assumed that the student has continued in his or her studies to learn leadership and become better prepared to ask the appropriate questions when a certain direction is needed from him or her.

Architectural criticism comes in different shapes and forms; it can emerge from a strictly journalistic setting, thereby acquiring a language that is largely based on impressions and a universal understanding of architecture, or it can be written from an academic angle and thus aim at unearthing certain invisible issues and discrepancies. It can be further nuanced so as to reflect a particular interest in political or social matters. The course touches on these various ways of writing criticism in architecture but will not attempt to bias one way of writing versus another; it will simply leave it to the student to decide his or her own angle and style.

CONTENTS:

- Who is the critic?
- Matters of voice and direction
- The rhetoric behind critical writing
- Moral parameters as a method of judgment
- Aesthetic questions as a vehicle of judgment
- The role of self in architectural criticism

REQUIREMENTS AND INSTRUCTIONS:

The course meets for an hour and a half twice a week. (a total of 3 contact hours per week.)

Course material is accessed through books, articles and is made available to the students through the bookstore, copies and online. Instruction is delivered largely in the form of a seminar where discussions and presentations define the exchange.

Grades are based on four main paper assignments, short weekly writings, ability to come prepared to discuss, and forthrightness with research.
ARCHITECTURE 463/563 -- ARCHITECTURAL STRUCTURES
3 Credit Hours, Required Lecture Course, Fall Semester

DESCRIPTION:
Wind and seismic loads on architectural structures; high-rise structure systems; reinforced concrete and masonry structures.

PREREQUISITES:
Arch 352

INSTRUCTOR:
Carper

OBJECTIVES:
This is the third course in a four-semester required sequence taken by students in Construction Management, and the final course in a series of five required courses for Architecture students. A sixth and seventh course are available as electives. In this course, seismic and wind forces are studied. The influence of dynamic lateral forces on architectural structures is considered and alternative responses are reviewed. The course attempts to cover the knowledge an architect must have to appropriately consider lateral forces while making conceptual design decisions. The available mechanisms for structuring tall buildings are included. New innovative structural systems are studied, along with evolving theories of structural behavior. Reinforced concrete design theory is presented and the theory is applied to both reinforced concrete and masonry systems.

CONTENTS:
- Seismic forces and their origin; Effects of earthquakes on the built environment
- Land-use planning for hazard mitigation
- Variables affecting ground motion
- Effects of vibrations on architectural structures
- Analytical methods: response spectrum, time history, shake tables, and equivalent static load methods
- Evolution of the seismic design codes: UBC, NEHRP/BSSC, IBC and international standards
- Fundamental schematic design principles for seismic resistance
- Wind forces on architectural structures
- Base isolation and other mechanical engineering solutions
- Professional responsibilities: involvement in formation of public policy
- The high-rise building: philosophy and technology of tall buildings
- Lateral force resisting mechanisms in tall buildings
- Reinforced concrete and reinforced masonry design theory
- Reinforced concrete beams, slabs, columns, foundations and retaining walls

REQUIREMENTS AND INSTRUCTIONS:
The course meets three times a week for a one-hour lecture (a total of 3 contact hours per week.) Course material is made available through lectures, in-class demonstrations, audio-visuals, assigned readings and homework assignments. The textbook is supplemented by a prepackaged set of photocopied materials.

Grades are based on weekly quizzes, a research paper, and a comprehensive final exam. Quizzes comprise 50% of the course grade, the research paper 25%, and the final exam 25%. Quality of participation is also rewarded.
ARCH 570 — GRADUATE DESIGN STUDIO

6 Credit Hours, Required Design Studio Course, Fall Semester, Spokane 2.5 Year M.Arch Program

DESCRIPTION:
Graduate design studio geared toward those students who show promise for architectural design studies at the graduate level, but who, in the opinion of the admissions committee, would benefit from additional basic skill-building studio work.

PREREQUISITES:
Bachelor's degree in Architectural Studies, and admission to the 2.5 year M.Arch program.

INSTRUCTOR:
Cohen

OBJECTIVES:
The overall objective is to reinforce students' basic design and representation skill sets, and to increase individual confidence, in preparation for the remaining four semesters of their graduate education. Specific objectives include:
1. To explore new and unfamiliar modes of conceptual thinking.
2. To learn observation-based research methods of site analysis, and to thereby learn to appreciate the value of real-world investigations of actual site conditions.
3. To develop a sense of professional, social responsibility.
4. To refine public speaking and presentation skills.
5. To refine and develop new architectural and graphic design skills.
6. To explore new and unfamiliar graphic presentation techniques.
7. To reinforce and improve model-building skills.
8. To learn basic principles of pedestrian-oriented, mixed-use urban design.
9. To refine writing skills through brief, one-page assignments aimed at clarifying design intentions.

CONTENTS:
The course is in three parts. It begins with a conceptual problem not likely encountered before, such as the design of a "garmenture" (a cross between a garment and a piece of furniture), or a "shelter without interior." It proceeds to a highly detailed and analytical analysis of an entire street in downtown Spokane, using mapping and archival methods of research. From this research students choose their own sites, justify their choices, and proceed to the design of a large, approximately 100,000 square foot, mixed use project involving challenging programmatic combinations. Program analysis figures prominently in the design process, as does continued urban analysis. Weekly assignments continually enrichen the designs with new theoretical concepts such as transparency, memory, indeterminacy, and the multi-functional element.

REQUIREMENTS:
The studio is composed of the three main segments, noted above, each of which concludes with a formal review. The final, mixed-use project incorporates three reviews, in which students are required to demonstrate both graphic and verbal clarity. Evaluation is based on criteria that include, but are not limited to: Response to the site, and the Spokane urban context; Response to climate (the variable and often severe weather of Spokane), the success of public/private mediation within the project; Extraordinary juxtapositions, overtaps and adjacencies of program; Extraordinary paths of movement and architectural episodes through and within the project; Expression of humanity, emotion, and memory: Appropriate expression of structure and materials to support the central research interest; Spatial richness; Multifunctional elements incorporated at all scales; Overall project development; Demonstration of consistency of research intention, form, structure, material, mood; Degree to which the solution is extraordinary, yet respectful of context; And the Magic- What have you added to this program and place that enchants?
ARCHITECTURE 573 - ETHICS AND PRACTICE IN ARCHITECTURE
3 Credit Hours, Required Lecture Course, Spring Semester

DESCRIPTION:
Continuation of presentation of Professional Practice issues with an emphasis on professional ethics

PREREQUISITES:
Graduate status

INSTRUCTOR:
Roger Williams FAIA, JIA

OBJECTIVES:
Architecture 573 is the students' final introduction to the parameters of professionalism in architecture. Key to the professional practice of architecture is the concept and application of ethics. The words ethics and practice have similar roots involving the customary and the natural, as in habitual, which shares the root of habitat, from the Latin for having, holding or dwelling. This course will examine how ethics, principles and values are essential to architectural design. The question of the course is: what is "good" design? What is "good" practice? The course is an introduction to the conventions of the architect and the architectural profession as they relate to society. The course investigates why and how architects practice, both in traditional settings (the office) and non-traditional settings (organizations, corporations, institutions). This includes the design process, professional protocol and to a limited extent, the legal aspects of the profession. The complete building process from program through occupancy is analyzed. The contractual framework for the building industry is introduced, including AIA and AGC standard agreements, general conditions for construction and specialized documents. Through out the course, the Case Study method will be used to compare the intended, or perceived values and goals of a design to the realities of the built project. The concept (intentions) represents principles/values, which combine to be architectural ethics. At the same time, the architect develops values toward architecture, which define the ethics of architectural practice.

CONTENTS:
- Architecture and buildings: The difference
- Values, architecture and intent, functional, technical, aesthetic
- "Good" architecture and ethical architecture: Criteria for determining "good" and "ethical"
- A brief history of Ethics
- Ethics and design: The typology, setting and purpose of architecture based on values.
- The design, documentation and construction process: The structure of projects. Collaboration,
- Fields of architecture: building type, sustainability, social response, cultural authenticity, tech competency and creativity
- Ethics in Practice: Resolving ideals and realities, values-based practice
- Architects’ Code of Ethics
- Practice standards: Standards of care, guides, tools, documents, agreements, laws, et.al.

REQUIREMENTS AND INSTRUCTIONS:
Seminar discussion format: Invited guests present varied perspectives on practice - Educators, construction managers, preservationists, young practitioners, large and small office architectural practitioners, contractors, governmental officials, clients and professional development consultants.
Papers, graphic presentations (boards and PowerPoints), verbal presentations to describe, analyze and compare the values, practice, and work of the speakers.
The Architects Handbook of Professional Practice, AIA and Wiley 2001
ARCHITECTURE 580 - ARCHITECTURE INTERNSHIP
4 Credit Hours, Required Course, Summer Session

DESCRIPTION:
This course requires placement in an approved industrial, professional, or governmental situation for specialized or general architectural experience.

PREREQUISITES:
Graduate student in the Master of Science or Master of Architecture program

INSTRUCTOR:
Hirzel

OBJECTIVES:
This is a ten-week course involving a hands-on in-office architectural training experience which utilizes architectural firms that are willing to provide student employment opportunities in a supervised professional training environment. More specifically the course has the following objectives:

1. Acquire and reinforce the discipline, integrity, judgment, skills, knowledge and quest for learning in the broad aspects of architectural practice.

2. Awareness about internship responsibilities and professional issues and opportunities.

3. Form a partnership between academia and the profession in identifying key issues in the education, training and preparation of competent architects.

REQUIREMENTS AND INSTRUCTIONS:
Implementation of the course requires that the architecture firms provide the following:

1. An intern level training period of at least 35 hours per week for a minimum period of ten consecutive weeks of office employment.

2. An intern training experience similar to the model used by IDP (Intern Development Program) under the direct supervision of a licensed architect within the firm. In accordance with IDP, the training may involve a body of knowledge in two major categories:
   (a) Design and Construction Documents, and
   (b) Construction Administration.

Students are required to provide the following:

1. Maintain consistent and diligent prescribed office hours throughout the training period.

2. Maintain a daily training log of tasks, duties and responsibilities throughout the employment experience for IDP (Intern Development Program) credit.
ARCH 425 - ARCHITECTURAL THEORY
2 Credit Hours, Elective Lecture Course, Fall Semester

DESCRIPTION:
The intent of this course is to examine significant twentieth century philosophies and theories that have influenced the course of architecture. Lectures discussions and student presentations in conjunction with extensive reading and writing serve as the format for learning.

PREREQUISITES:
Certification in Architecture or Construction Management

INSTRUCTOR:
Kessler

OBJECTIVES:
There are two overall intentions for the course. The first is to provide students a forum so that they may understand the ideas and beliefs that are underlying significant works of architecture. The second intent is to encourage students to develop individual values regarding their personal beliefs to that their own design work may be formulated within a broad architectural discourse.

CONTENTS:
Three Modes of Making: If architecture is seen as the art and tectonics of making, then investigating the modes of making become critical to our understanding of architecture. In this class we will investigate three modes that inform making and seek to understand how they contribute to our ontological values. The three modes will be described as what we think, what we feel and what we experience. 1. What We Think: During this part of the course we will investigate the modes of rational thought. That is, how has rational western thought influenced the structure of our modern culture and civilization? We will investigate some of the foundations of rational philosophy and how the supremacy of the mind as a means of understanding the human ontology has shaped our thinking. 2. What We Feel: During this part of the course we will investigate how the qualities of feeling, emotion and sensualness can inform what we make. Narrative and poetic prose, which focus upon the emotional dimensions of life and how these dimensions contribute to our understanding of the world, will be discussed. These investigations will be done through the reading of Italo Calvino and Jorge Luis Borges. 3. What We Experience: Our lives are composed of interactions with physical objects, things and places. The material dimensions of our life are an important aspect in guiding our interactions, beliefs and thoughts. These interactions may be referred to as experiential phenomena and can be used to inform our values and ideas about our environment.

REQUIREMENTS AND INSTRUCTIONS
Course Structure: The three themes for the course are divided equally during the semester. Each week will consist of lectures, readings and discussions. Students are expected to have completed all reading for each day prior to arriving in class.

Requirements: Students will be required to develop three “panels” one for each segment of the course. The format and exact content for the panels will be discussed during the first several weeks of the semester. It is expected that the panels will be of exceptional graphic quality, framed and matted and will form an end of the semester exhibit. In addition to the panels there will be three short essay quizzes distributed at random points during the semester.

Grading: Quizzes 30%; Panels 60%; Participation and discussion 10%

Texts: Rationalism and Romanticism in Architecture, Lesnilowski; Invisible Cities, Italo Calvino; Poetry, Language, Thought, Martin Heidegger; Collected Actions, Jorge Luis Borges
ARCHITECTURE 436 - DESIGN SYSTEMS IN MATERIALS

3 Credit Hours, Architectural Emphasis Elective

DESCRIPTION:
This course will consist of two parts:
(1) historical approach to understand materials which will be examined through reading and
(2) exploration of an ordinary material, which each student will choose based on research in
relation to the instructor's lectures.

PREREQUISITES:
Certification in Architecture or Construction Management

INSTRUCTOR:
Miyasaka

OBJECTIVES:
The exploration of ordinary materials will be demonstrated in a design product at the end of
semester. Each student is to make a screen as a final product by using ordinary materials. The final
product is to be understood as a device for investigating architectural ideas and the process of
fabrication is to be understood as an act of inquiry.

CONTENTS:
There will be lectures by the instructor periodically. The lecture topics will include J.J. Gibson's theory
of Affordance, proportional systems of different architects, and Droog's inverse methods of design.

REQUIREMENTS AND INSTRUCTIONS:
The class time will be devoted to discussion and critique of the ongoing student designs in addition
to the instructor's lectures. The class will require students to use College of Engineering wood and
material fabrication shops intensively. Students are allowed access to the machines if a trained
supervisor is present and aware that the student is under his/her supervision. Students are required
to have safety instructions by a supervisor of the shops at the beginning of the semester. Students
need to understand that the university not covers students for any injuries they may suffer while
using the machinery or in the shops.

Reading Materials:
James J. Gibson, *The Ecological Approach to Visual Perception*
Edward S. Reed, *Encountering the World and The Necessity of Experience*
Manuel Delanda, *Intensive Science & Virtual Philosophy*
Dung Ngo and Eric Pfeiffer, *Bent Ply*
Walter Benjamin, *Illuminations*
Bruce Mau, *Massive Change*
Renny Ramakers, *Less + More*

"One can only make the world more beautiful by confronting what needs improvement." - Richard Hutten

"A material practice like cooking requires operating in an environment with a surfeit of information.
Coordination of this information takes place at a speed and quantity beyond that of
comprehension, yet it can be managed with exquisite precision." - Jesse Reiser

"According to classical physics, the universe consists of bodies in space. We are tempted to
assume, therefore, that we live in a physical world consisting of bodies in space and that what we
perceive consists of objects in space. But this is very dubious. The terrestrial environment is better
described in terms of a medium, substances, and the surface that separates them."

James J. Gibson
ARCH 438 - DAYLIGHTING DESIGN SEMINAR
2 Credit Hours, Architectural Emphasis Elective, Spring 2004

DESCRIPTION:
Day-lighting is rapidly becoming popular in building design. Daylight significantly reduces energy use, but beyond that, it provides building occupants with profound comfort. This class is focused on integrating day-lighting strategies into your designs and giving students the basis from which day-lighting design can begin.

PREREQUISITES:
Certification in Architecture or Construction Management

INSTRUCTOR:
Taylor

OBJECTIVES:
This class is focused on integrating day-lighting strategies into your designs and giving students the basis from which day-lighting design can begin.

CONTENTS:
The class will have two emphases: day-lighting theory and day-lighting practice. The plan is to have one meeting in a lecture and discussion format and one meeting in a practice format. The first few meetings will be an overview of day-lighting theory, then the course will be largely based on day-lighting design, practice, modeling and measurement.

This course will also emphasize technical design reporting, so be prepared to write and present data in meaningful ways. You will be asked to “write up” any design that you pursue from beginning to end.

- Overview and History;
- Basic Lighting Strategies;
- Calculations, Metrics and Measurements;
- Basic Modeling Techniques- Proof of Concept;
- Basic Measurement Techniques;
- Precedents: Diagrams to Designs;
- Research: Case Studies
- Project 1: A Room Study
- Project 2: Day-lighting Case Study
- Project 3: Design Analysis

REQUIREMENTS AND INSTRUCTIONS:
All classes are mandatory; attendance is required at all class meetings. Work should be completed on time and submitted in a professional manner.

Grading is in three forms: participation 50%, reports (written and verbal) 65%, and design analysis (models, measurement and reporting) 85%. No exams or quizzes will be given.

The projects in this class require good writing and speaking skills and a clear presentation style. Everything that you submit in our class should be done in a professional manner. Unclear, incomplete or "sloppy" work will be heavily penalized; clear, complete and neat (professional) work will be significantly rewarded. You will also be asked to critique each other. Peer feedback: and group work will be an everyday event.
ARCHITECTURE 440 - ARCHITECTURAL ACOUSTICS
2 credit hours. Emphasis Elective, Fall Semester

DESCRIPTION:
In this lecture+ lab course, we will achieve a basic understanding of the nature of sound, its interaction with building elements, its measurement, and our reaction to it. We will come to understand design criteria and how it can be applied, in practice, to practical architectural designs. The course will not be detailed enough to do detailed design work. It is an awareness course, intended to impart a respect for acoustics as a design determinant.

Sound and its interaction with the built environment is a phenomena that surrounds us from cradle to grave. It's the designer's role to control that relationship, to promote “acoustic comfort” in manmade structures. The increasing number of noise sources inside and outside our buildings, the shift from heavy constructions to thin, light-weight, movable and prefabricated building elements, in conjunction with the growing demand for improved hearing conditions, have made architectural acoustics an essential component of design determinants.

PREREQUISITES:
Physics 101, math 101, certification in Architecture or Construction Management

INSTRUCTOR:
Burnett

OBJECTIVES. CONTENTS:
Outdoors
- Meet local codes Locate the building on the site
- Define noise sources
- Design noise barriers
- Locate noise-sensitive spaces
- Design walls and windows Indoors
- Ensure quiet spaces
- Design for speech
- Accommodate music performance
- Plan multi-use spaces
- Plan expandable spaces
- Accommodate athletic facilities
- Control Mechanical noise

Room to room
- Design for isolation
- Ensure acoustical privacy
- Locate critical spaces

- Detail construction

REQUIREMENTS
We meet once a week. The lectures do not repeat the reading material; but reinforce it. The lecture includes audible demonstrations, and illustrations of how to use "hands on" instrumentation. Campus and city buildings and sites are used as laboratories which are measured and observed as specimens. When possible, new construction is used for acoustic detailing observation. The text is the classic: “Architectural Acoustics” by M. David Egan
PHILOSOPHY 435 - PHILOSOPHY AND ARCHITECTURE EAST AND WEST
3 Credit Hours, Elective Course,

DESCRIPTION:

A basic introduction to several key ideas that shaped Eastern and Western worldviews, and how these ideas influenced the design and experience of built environments. Philosophers covered: Plato, Descartes, Wm. James, Confucius, Lao Tzu, Chuang Tzu. At the end of the semester you will gain appreciation both for how different cultures solve basic questions of life in the cosmos, and also how those basic questions are themselves universal.

PREREQUISITES:
Open to all WSU Students

INSTRUCTOR:
Wang

CONTENTS:
- Two Key Concepts
- The Legacy of Plato’s Cave  
  Readings: Plato / Descartes / James
  Reading: Welcome to the Experience Economy
- Nature in Confucius and Laotzu  
  Readings: Confucius / Laotzu / Chuangtzu / Okakura
- House  
  Readings: Tanizaki / Forty / Wang
- Garden  
  Readings: Fung / J. Wang / TBA
- City  
  Readings: Steinhardt / TBA
- Why We Frame Pictures  
- How We Experience Beauty  
  Readings: Wang / TBA
- The Everyday Sublime  
  Readings: Wang / TBA

REQUIREMENTS AND INSTRUCTIONS:
Class format: WHETS; instructor will try to be at locations in person on alternate sessions.
Grading: Midterm exam (303); Group project (303); Final exam (303); 103 instructor discretion (class participation, demonstration of interest, etc). 100 pts max. No curves.

This course is a General Education Requirement. As such, you will be graded in accordance with the appropriate standards for comprehension, critical thinking, and writing skills.

Attendance: You are expected to be at all class sessions. Since this class meets only once per week, any absence is crucial. On unannounced occasions, I will take attendance at start of class or after the break. If you are not there at those times, it will count as one absence. If 2 absences = 1 grade deduction. If 3 absences: please withdraw from the course or you will fail.

All readings will be available to you to download on the Blackboard site for this class. Go to:  
and follow your usual login procedures. This course is Phil435 and the access code is ProfWang435. If you have any problems related to blackboard, DO NOT CONTACT ME: contact GTA

Semester schedule with readings and due dates (all readings to be done on the date of class. I will call upon you unsolicited for questions during class, and your answer will show me if you’ve read the material: this figures into the 10 discretionary points). Schedule subject to change.
ARCH 442 -- THEORY OF URBAN DESIGN and DEVELOPMENT
3 Credit Hours, Architectural Emphasis Elective Course, Spring Semester

DESCRIPTION:
This course will investigate the history, principles and theories of the physical design and development of cities.

PREREQUISITES:
Major in Architecture, Construction Management, business or public administration.

INSTRUCTOR:
Owen

OBJECTIVES:
The overall goal of the course is to help students formulate an understanding of the complex forces, which shape urban form. This requires inquiry into the history, theory and practice of urban design and development in Europe, Asia and the Americas. The course will examine city history and theory as manifested in a variety of design traditions: indigenous, monumental, garden city, suburban and "modern." The students will discover, for better and for worse, how these traditions are manifested in our contemporary cities and examine new emerging concepts of city design which challenge and incorporate many of the principles of these former traditions.

Additionally, the course will examine the tools and techniques of contemporary city design; how to design cities without designing buildings: how to accomplish wide-scale development in a context of private capitalism and participatory democracy; and how to make North American cities more livable.

This course also fulfills a "Writing in the Major" [MJ requirement for the General Education Requirements.

CONTENTS:
The specific content of this course includes:

- History and theories of urban development from Greek: and Roman cities to today including the Industrial City; the Garden City; and New Towns in Europe and the United States. The course also addresses suburbanization and the cost of sprawl and urban sustainability issues.
- Principles of city planning and urban design including the legal and administrative basis for planning. The course also addresses the comprehensive plan, zoning issues and the environmental impact assessment process.
- Principles of the development process including the roles of the public and the private sectors. Issues addressed include budget and finance, program planning, government permits, site selection and acquisition, design and construction.

REQUIREMENTS AND INSTRUCTIONS:
The course is primarily a lecture course with three exams. However, there is also a major project consisting of a case study of a development project with both oral and written reports. The project is a major public or private development involving a building or group of buildings. The reports include information regarding the development team, overall schedule, financing profile, zoning and permits, physical form of projects, and a summary of the program objectives and design and construction processes identifying critical issues/points in the entire process. Extra credit can also be obtained by attending and reporting on a public planning-related meeting or viewing videos produced by Edmund Bacon on the design of cities.
DESCRIPTION:
Basic 2D concepts and commands used in Autodesk AutoCAD 2007. Advanced 2D & 3D modeling as it relates to working drawings.

PREREQUISITES:
Certification in Architecture or Construction Management

INSTRUCTOR:
Burnett

OBJECTIVES:
This is our beginning CAD course, which introduces basic 2D CAD concepts. Many of our 451 students have become familiar with the basic functions of AutoCAD as taught in high school classes. Our objective is to provide grounding in what have become 2D CAD "drafting" fundamentals, and which can be applied to support drafting, and presentation proficiency with an emphasis on "presentation drawings". We hope to impart a broad scope understanding of what the software can do, and a strong sense of how to systematically achieve the desired steps in 2D drafting.

Recent surveys show that the architectural design professions are regularly using 3D, but even those who have adopted 3D as part of their workflow still spend 80% of their time doing 2D drafting. However, before doing documentation and producing the drawing sets that people need to build something, basic CAD concepts need be mastered. This course is aimed at that underpinning.

CONTENTS:
The course consists of short lectures, examples of application followed by textbook "hands on" exercises. The topics include the drawing interface and commands: such as: window components, menu bar, tools, draw and modify commands, panning, zooming, the command line, coordinate input systems, drawing units, ortho, snap, grid, object snaps, arcs, circles, circle, splines, fills, hatches, polygons, etc. We move on to more advanced concepts, such as: polylines, grip editing, properties, selecting, joining and erasing objects, moving and copying, blocks, X-refs, layers, text, text styles, dimensions, drawing data extraction, scaling, viewport management, printing, plot styles, etc.

We will cover extended basic concepts and commands used AutoCAD 2007. Students then choose a project and contract for drawing it for presentation. You will have in class presenters to mentor your CAD projects. As the projects progress, you will be expected to share the use of various commands and techniques with others in the class via structured presentations viewed by all.

REQUIREMENTS AND INSTRUCTIONS:
Each week's exercises and quizzes are saved to a CD-RW and turned in on Thursdays. They are returned Tuesday and after having been logged and graded. The grading includes not only the mastering the AutoCAD commands, but doing drawings to industry graphic standards. This includes, title block, line weights, text and dimensioning size, placement, font, etc. The drawings must "read well", and communicate properly. AIA and CSI standards are referenced, along with specimens distributed in class. At the halfway point in the semester, students begin to apply their knowledge to approved projects of their own choosing.
ARCHITECTURE 452 – COMPUTER AIDED DESIGN / DRAFTING II
2 credit hours, Architecture Emphasis Elective, Spring Semester

DESCRIPTION:

Extended basic concepts and commands used in Autodesk Architectural Desktop. Advanced 2D & 3D modeling as it relates to working drawings.

PREREQUISITES:
Arch 451

INSTRUCTOR:
Burnett

OBJECTIVES:
Given that the students have become familiar with the basic functions of 2D AutoCAD as taught in Arch 451, we will turn our attention to AutoCAD 3D application skills, using Architectural Desktop. We hope to impart a broadscope understanding of what the software can do, and a strong sense of how to systematically achieve the desired steps in drafting, modeling and presentation. Some specific objectives include:
Understand the scope of the Autodesk family of drawing and modeling applications

- The use of tool and properties pallets
- The generation of Building Massing
- The creation of “space objects” (Boolean operations)
- The automation of parametric Walls
- The automation of parametric Windows
- The automation of parametric Doors
- The automation of parametric Curtain Walls
- The automation of parametric Door and Window Assemblies
- The automation of parametric Roofs and Roof Slabs
- The automation of parametric Structural Members
- Dimensioning, Elevations, Sections, Callouts, Detail Components, Schedules
- The use of Multiview blocks
- The use of rendering

CONTENTS:
We use “follow along” assignments with “hands on exercises” is to support drafting, modeling and presentation proficiency with an emphasis on “working drawings”. Students pair up in teams, and present the step by step sequences to build a 3D parametric model for working drawing proficiency. Each exercise is presented by the teams to the class on a projector. One member presents, while the other roams the room assisting individuals at their workstations and laptop PCs. When we get to the point of sufficient understand of the CAD parametrics, we have the students work on approved projects of their own choosing. The end product is of vested interest to the student, and is "built" from intelligent architectural objects provided in ADT.

We also have various presentations from experts in architectural CAD practice, which now includes an introduction to BIM. (Building Information Modeling).
ARCHITECTURE 456—ARCHITECTURAL FIELD SKETCHING
3 Credit Hours, Architectural Emphasis Elective Course, Summer

DESCRIPTION:
Introduction to ways of strengthening the eye-hand coordination, sketching media, accurate transferring of things seen into sketched image, capturing effect and various sketching techniques.

PREREQUISITES:
None.

INSTRUCTOR:
Rahmani

OBJECTIVES:
The objective of this course is several. The first objective is to introduce students to ways by which they can strengthen their eye-hand coordination and in so doing draw more accurately and also more creatively. The second has to do with teaching the students methods by which they can gain greater ability to capture proportions and transfer reality accurately. Another objective of the course has to do with giving students access to a variety of sketching media and how each captures a different effect from the one before it.

CONTENTS:
- Eye-hand coordination
- Still life using the hand not usually used to draw with
- Visual narrative of multiple scenes using frames
- Capturing proportions and transferring reality into sketch
- Drawing with charcoal and capturing the effect of surface
- Drawing with charcoal and capturing vegetation
- Sketching with water color

REQUIREMENTS AND INSTRUCTIONS:
The course meets four times a day for six weeks over the summer. (a total of 12 contact hours per week.) Course material i.e. examples of methods is made available through slides and at times in class viewing of books.

Grades
homework.
ARCHITECTURE 463/563 -- ARCHITECTURAL STRUCTURES
3 Credit Hours, Required Lecture Course, Fall Semester
Required for M.Arch, Elective for B.S.Arch

DESCRIPTION:
Wind and seismic loads on architectural structures; high-rise structure systems; reinforced concrete and masonry structures.

PREREQUISITES:
Arch 352

INSTRUCTOR:
Carper

OBJECTIVES:
This is the third course in a four-semester required sequence taken by students in Construction Management, and the final course in a series of five required courses for Architecture students. A sixth and seventh course are available as electives. In this course, seismic and wind forces are studied. The influence of dynamic lateral forces on architectural structures is considered and alternative responses are reviewed. The course attempts to cover the knowledge an architect must have to appropriately consider lateral forces while making conceptual design decisions. The available mechanisms for structuring tall buildings are included. New innovative structural systems are studied, along with evolving theories of structural behavior. Reinforced concrete design theory is presented and the theory is applied to both reinforced concrete and masonry systems.

CONTENTS:
• Seismic forces and their origin; Effects of earthquakes on the built environment
• Land-use planning for hazard mitigation
• Variables affecting ground motion
• Effects of vibrations on architectural structures
• Analytical methods: response spectrum, time history, shake tables, and equivalent static load methods
• Evolution of the seismic design codes: UBC, NEHRP/BSSC, IBC and international standards
• Fundamental schematic design principles for seismic resistance
• Wind forces on architectural structures
• Base isolation and other mechanical engineering solutions
• Professional responsibilities: involvement in formation of public policy
• The high-rise building: philosophy and technology of tall buildings
• Lateral force resisting mechanisms in tall buildings
• Reinforced concrete and reinforced masonry design theory
• Reinforced concrete beams, slabs, columns, foundations and retaining walls

REQUIREMENTS AND INSTRUCTIONS:
The course meets three times a week for a one-hour lecture (a total of 3 contact hours per week.) Course material is made available through lectures, in-class demonstrations, audio-visuals, assigned readings and homework assignments. The textbook is supplemented by a prepackaged set of photocopied materials.

Grades are based on weekly quizzes, a research paper, and a comprehensive final exam. Quizzes comprise 50% of the course grade, the research paper 25%, and the final exam 25%. Quality of participation is also rewarded.
ARCHITECTURE 464/564 -- ARCHITECTURAL STRUCTURES IV
3 Credit Hours, Architecture Emphasis Elective, Spring Semester

DESCRIPTION:
Deflection theory; classical and computer analysis for statically indeterminate architectural structure systems.

PREREQUISITES:
Arch 352

INSTRUCTOR:
Carper

This is the final course in a four-semester lecture sequence offered as an elective for students in Architecture and in Construction Management. A subsequent directed study elective is also available, Arch 498. In this course, a review of basic structural analysis concepts is given. Classical deflection theory is provided and then applied directly to the analysis of statically indeterminate structures-continuous beams and rigid frames. The personal computer is used to supplement hand calculations and fundamental theory throughout the course. The students are exposed to aspects of advanced structural theory and future directions in structural design methodology. Students who lacked confidence in the basic structural theory for statically determinate systems have their confidence and proficiency strengthened, and qualified students are motivated toward further coursework or graduate study related to the technical aspects of architecture.

OBJECTIVES:

This course is regularly presented over the Washington Higher Education Telecommunications System (WHETS) simultaneously to students in Pullman and Spokane. Course material is made available through lectures, in-class demonstrations, audio-visuals, assigned readings and homework assignments. The textbook is supplemented by a prepackaged set of photocopied materials.

Grades are based on assigned homework, three in-class examinations and a comprehensive take-home final exam. Each component (homework, three exams, and final exam) contributes 20% to the course grade. Quality of participation is also rewarded.
ARCHITECTURE 480 - ARCHITECTURAL INTERNSHIP
1-4 Credit Hours, Architectural Emphasis Elective

DESCRIPTION:
WSU offers Certified Architecture students an opportunity to receive Credit Hours for multiple internships in industrial, professional or governmental situations for specialized or generalized experience relevant to the degree that they are pursuing.

PREREQUISITES:
Certification in Architecture

INSTRUCTOR:
Taylor (coordinator)

OBJECTIVES:
To provide a structure for monitoring professional intern experience.

CONTENTS REQUIREMENTS AND INSTRUCTIONS
ARCH 480 may be repeated up to a MAXIMUM of 4 Credit Hours. The course is evaluated on the basis of length of time, quality of performance and challenge of the experience. The first two criteria are based upon information provided by your internship supervisor. To assess the challenge of the experience, a short portfolio that illustrates the range of work in which the student has engaged shall be submitted. A certified student may sign up for only one designated experience per semester for either 1 or 2 credits. One credit may be earned for every 175 internship hours. A student may receive credit for a previous experience only if it has occurred within one year of the beginning of the semester in which the credit is to be received. For example, a summer internship may receive 2 credits during either the following fall or spring semester ONLY. Documentation of experiences older than the example above will not be accepted. In keeping with the expectations of the National Council of Architectural Registration Board, Internship credit may only be received AFTER COMPLETION OF THE THIRD YEAR IN A PROFESSIONAL PROGRAM for experiences in which an average of 35 hours per week were worked by the student for a minimum of 10 consecutive weeks.

1. The student must first receive permission to enroll by submitting:
   a. the Internship Learning Agreement
   b. a letter documenting:
      That the student has completed the third year in the professional program
      The organization and its contact information for which the student worked,
      That they have contacted the principal--in--charge and that the principal has agreed to complete
      Identification of the semester for which the credit will be registered.

2. The student must request that the principal...in--charge of the organization send the following:
   a. a letter on official company letterhead that addresses the following:
      The general duration of the student's involvement (hours/week, number of weeks)
      The duties and responsibilities of the student and the number of hours worked
      A general overall evaluation of the student's performance with a recommended grade
      Signed and dated by both the student's supervisor and the principal-in-charge
   b. A completed Final Employer Evaluation

3. The student is to submit:
   a. an electronic portfolio that provides representative documentation of the internship experience
   b. A completed Student Evaluation of Internship Experience
ARCH 490 - HISTORICAL PRESERVATION - ARCHITECTURAL SEMINAR
2 credit hours, Architecture Emphasis Elective, Fall & Spring Semester

DESCRIPTION:
This seminar concentrates on researching and building a museum exhibit that centers on the embedded technology of the 1931 Spokane Fox theater. The building was at the center of Spokane’s entertainment for decades and now has been bought by the Spokane Symphony and remodeled as performing arts center. This classic art deco movie and performing arts center was where Spokane first experienced large venue refrigerated air conditioning, sound on film "talkies", and high intensity arc projection, and extensive dimmable theatrical lighting.

A fully functional miniature model is being built, which, when displayed with the original projection and lighting equipment. The model has operable, motorized curtains, an LCD projection screen, and contains it's own computer for automated display of early "talkies", and narrated explanations of the "embedded technology" that was "cutting edge" at the time.

PREREQUISITES:
Certification in Architecture

INSTRUCTOR:
Cohen (Spokane)

OBJECTIVES:
To give students a first hand experience at historical preservation research, saving architectural artifacts, studying architectural drawings, creating 3D architectural display models, dealing with the politics of historical artifact preservation and display, and construction site realities.
Among the artifacts that the students have helped save from demolition are an original Simplex Super arc projector, a Westinghouse D.C. power distribution panel, and a 21h ton resistance dimmer. They are now stored in our storage locker where rehabilitation work is being performed.

CONTENTS:
The students have been required to meet with Fox Theater and Spokane Symphony staff, construction personnel, a long time Spokane theater manager, seniors who have had affiliations with the Fox, and others who have memories of the 1931 grand opening. They also have been meeting with representatives from Eastern Washington museums to assist in developing the display design. The students have been doing extensive research on refrigeration, projection, and technical working drawing detailing that relate to the building.
The Spokane I.D.J. studios serve as a location where the model is being constructed. The electronics for the model is being assembled in Pullman with assistance from Electrical Engineering Students.

REQUIREMENTS:
The students are given tasks which need to be performed and match their talents, individually or in teams. Work includes: CAD modeling, grant research and writing, historical research on Spokane city history, the Fox empire, architectural theater technology, refrigeration history, theater organ history, theater sound history, projection history, and museum display standards. Some do "heavy lifting" and work on the full size historical artifacts.
ARCHITECTURE 492-ARCHITECTURE, TOURISM, AND TRAVEL SEMINAR
3 Credit Hours, Architecture Emphasis Elective Course, Spring Semester

DESCRIPTION:
This seminar relies upon the premise that architecture is integral to the process of tourism and travel. While encounter with the built environment is often inadvertent, it nevertheless shapes a large part of the traveling (or touring) experience. In some cases, however, the very objective of travel is architecturally-related, from eighteenth-century European trips to the monuments of classical antiquity, journeys to Chicago's World's Columbian Exposition in 1893, or contemporary pilgrimages to Frank Gehry's Guggenheim Museum in Bilbao, Spain. Because tourism is the world's number one industry, cities everywhere compete to attract top-name architects to design signature buildings intended to boost the local economy, improve civic image, and attract tourists. One might argue that today's tourists are more interested in aspects of the built environment than anything else. When and how did this phenomenon begin, and how have architects and architecture more generally aided and abetted this process?

This seminar will explore that question through a series of readings and assignments that will draw upon a number of important theories and ideas driving tourism scholarship. These include questions of authenticity/inauthenticity, representation, memory, the gaze, colonialism and the "other," the picturesque, the sublime, heritage, and marketing. Nonetheless, the built environment will always remain central to our inquiry even if the readings do not always focus directly on architecture per se. There will be a general focus upon tourism and travel in the modern world, but we will also explore examples of "architourism" in the past. Our investigations into the past should raise questions about the supposed newness of what is being called "architourism," and the degrees of difference between then and now (if any).

While this is not a design course, the final project will encourage students' design talents. More importantly, the seminar is "designed" to expose students to major issues and concerns that shape much of the large-scale design world today. These issues are as often economic, political, social, cultural, and class-based as they are design-oriented.

PREREQUISITES:
Certification in Architecture

INSTRUCTOR:
Gruen

COURSE STRUCTURE: This is an upper-division seminar, featuring weekly group student-led presentations and class discussions on assigned material. Thus, the success of every meeting will rely as much on the participation, energy, and interest of the students as it will on the professor. It is expected that students come to class each week prepared to discuss, debate, support, or criticize the reading material - not merely to summarize and parrot back what was assigned.

REQUIREMENTS: There will be three short writing assignments during the course of the semester, asking students to relate issues of tourism and travel to ideas raised in the assigned readings. The final project will be a critical guidebook to some site, block, neighborhood, town, city, region, or state. The topic and angle of the guidebook will be up to the individual student, but it must be the equivalent of 10-12 double-spaced type-written pages. It must incorporate material we have discussed during the course of the term, and it must be filled with images. Still, the guidebook must have a critical edge; it should be rather unlike a conventional architectural guidebook. However, the built environment must remain central to its focus. In the last two weeks of the semester, students will also present ideas from their final projects to the class in an oral presentation.
ARCHITECTURE 492 - AMERICAN VERNACULAR ARCHITECTURE SEMINAR

3 Credit Hours, Architecture Emphasis Elective Course, Spring Semester

DESCRIPTION:

This seminar critically examines a large part of the built environment that we tend to ignore: the everyday, the ordinary, and the vernacular. Indeed, one would be hard-pressed to learn much about our subject in conventional texts on American architecture. Too often, vernacular architecture is considered "non"-architecture, not "designed," and thus not worthy of scholarly inquiry. We will interrogate such assumptions as we untangle the complexity of what might otherwise seem a simple topic. The complexity of vernacular architecture is embedded in the cultural landscape – at the intersection of human social relations, design, and the land. In this respect, we will focus on the social and cultural processes that bring vernacular architecture into focus, although we will also note how well-known designers or styles have been frequently inspired or informed by the vernacular. To help understand these processes, we will read authors with academic training or expertise in a variety of disciplines including architecture, architectural history, urban design, landscape architecture, preservation, geography, American history, American studies, anthropology, and folklore.

PREREQUISITES:
Certification in Architecture

INSTRUCTOR:
Gruen

OBJECTIVES:
This seminar has a wide scope. We will explore everything from individual buildings to large mega-complexes; from the hand-crafted to the mass-produced; from the urban, the suburban, the ex-urban, to the rural; and from the distant past to the more recent past. Not only will we examine building types typically associated with vernacular architecture (barns, log houses, rowhouses, and the like), but also ethnic neighborhoods, shopping malls, gas stations, freeways, fast-food restaurants, theme parks, and trailer parks. A rigid chronological format will not be followed, but we will examine theories of the vernacular and historical case studies before reaching more recent phenomena (such as edge cities, sprawl, and power centers).

CONTENTS:
This is an upper-division seminar-style course, combining regular lectures with weekly student-led presentations and general class discussions on assigned material. Thus, the success of every meeting will rely as much on the participation and energy of the students as it will on the professor.

REQUIREMENTS:
There will be two short written projects due during the term, one of which is due on February 7 and the other due on March 21. Both of these projects will require (relatively) short field trips to neighboring towns, which you may do alone or in groups (although I am expecting different projects from each of you). The final project will be more time consuming, and is due the final week of class. That project will combine writing, research, images, and design/layout skills for an original guidebook to an overlooked, and possibly misunderstood, part of the vernacular landscape. Each student must also give an oral presentation in the last two weeks of class.

Required Reading:
Paul Groth and Todd W. Bressi, eds., Understanding Ordinary Landscapes
John Brinckerhoff Jackson, Discovering the Vernacular Landscape
Course Reader: Includes articles from books and journals on vernacular architecture.
ARCHITECTURE 493 - SUSTAINABILITY AND THE BUILT ENVIRONMENT SEMINAR
3 Credits Hours, Architecture Emphasis Elective

DESCRIPTION:
This course will discuss the relationship between architecture and ecology while investigating current theory related to sustainability, economics, project delivery and LEED rating.

PREREQUISITES:
Open to Architecture, Construction Management, Interior Design, Landscape Architecture, Engineering (other majors allowed by instructor permission)

INSTRUCTOR:
Taylor

OBJECTIVES:
The following topics are the goals for the course:
- Understand the current theories and leading thoughts in the area of sustainability
- Understand the effects of building on the ecology of the planet
- Understand the economics of buildings over time in terms of initial cost and operation
- Learn the latest trends in project delivery systems as they relate to sustainable design
- Understand and show proficiency in the US Green Building Council's LEED rating system
- Research and present case studies in sustainable design

CONTENTS:
Definitions of sustainability – discussion and research; Sustainable design – big picture/global ideas
Prominent theorists and practitioners - presentations assigned
Theorists and ideas; Today’s prominent theorists; LEED introduction
Case Study examples: US Green Buildings that work
LEED practice exam – compile questions and study guides

Theory Topics:
Sustainable buildings; Regenerative architecture; Natural Capital; "Peak Oil"; Solar communities; The "zero-energy" home; Alternative to oil and gas; Zero emission vehicles; M. King Hubbert logistics; "Cradle to cradle"; Local economies; Permaculture

Case Studies
Orenco Station, Portland; Nodal communities, Eugene; Seattle City Hall; Chesapeake Bay Foundation; EPI-center. Montana State; Village Homes, Davis, CA; Islandwood, Bainbridge, WA; Commerzbank, Frankfurt; Mt. Cenis, Germany; Seaside, Florida; Seattle City Library; EcoTrust, Portland; Students can research other topics with instructor approval

REQUIREMENTS AND INSTRUCTIONS:
Papers, presentations and case studies will be retained in a digital format on a common share drive. The course will be summarized in Word documents, Power Point presentations and videos. Each student will receive a copy of the work products on CD. Each deliverable will be “designed” by the class as a whole. As it befits seminars, the students will be charged with determining the course products.

Authors: David Orr, William McDonough, Amory and Hunter Lovins, Stuart Cowen, Sim Van der Ryn, Stuart Brand, Tom Paladino, Matthew Simmons, Richard Heinberg, Michael Ruppert, Colin Campbell, Ken Deffeyes, Michael Corbett, Peter Calthorpe, & others.

Evaluation: 153 - LEED exam presentation and study guide; 253 - individual case study presentation; 253 - theory presentation and short paper; 253 - attendance and participation; 103 - final CD
ARCHITECTURE 495 - CONCEPTUAL ESTIMATING
3 Credit Hours, Architecture Emphasis Elective, Spring Semester

DESCRIPTION
Estimating is an art and a science, with heavy emphasis on craftsmanship and the routine procedure of the estimator dedicated to the needs of his or her company. In Arch 495 we will examine these terms and concepts and how they apply to conceptual estimating for architects. In addition, Arch 495 will deal with topics of change orders, special estimates, value engineering, ethics and many more.

PREREQUISITES
Minimum Third year of Architecture status

INSTRUCTOR:
Kirk

OBJECTIVES
Upon completion of this course, students shall be able to:
- Review quantity survey concepts.
- Understand the concept of applying labor to an estimate.
- Understand the concept of applying material to an estimate.
- Perform conceptual line item cost from work: up sheets to general estimating sheets.
- Estimate job overhead and understand its relationship to the total cost of the project.
- Estimate general conditions and waste factors.
- Understand the concept of Design Bid Build estimates I.E. hard bids
- Perform design build conceptual estimates

REQUIREMENTS AND INSTRUCTIONS:
Conceptual estimates
Homework: are individual assignments or group assignments performed during the class period, or as in homework: outside of the class. These projects will relate to the topics discussed to improve your basic estimating skills or for you to understand how a general contractor prepares a bid. All homework: will be due at the beginning of the class period at the exact time indicated on the specified day.

seating chart will be made. Punctuality, class attendance, participation and preparation are direct reflections of your interest in the course. If you enter the classroom after roll has been taken, or you leave early you will be considered absent. No excuses will be entertained. For each absence from class, 3 points (3 %) of your grade will be deducted. For each absence from lab, 5 points (5 %) of your grade will be deducted. If you are late for class (we start on my watch and not YOURS), 23 of your grade will be deducted. After you have reached the 103 mark, the points will be doubled and will take precedence over the other scores. You get two free class periods.

Required References
- Lost semesters Architecture projects
- Contract Documents (purchased)
- Handouts, Class Notes (purchase from a copy center)
- Guest speakers

Evaluation
Conceptual estimates / Homework 503
Attendance
ARCHITECTURE 498 -- SEMINAR IN ARCHITECTURAL STRUCTURES

Variable 1-4 Credit Hours, Architecture Emphasis Elective Seminar, Spring Semester

DESCRIPTION:
Advanced study in architectural structure systems.

PREREQUISITES:
Arch 463/563

INSTRUCTOR:
Carper

OBJECTIVES:
This elective provides the opportunity for motivated students to explore a variety of topics related to architectural structure systems and related technical aspects of architecture, beyond the content of the required course sequence. On a regular basis, a directed formal seminar is offered, addressing topics of interest to the students enrolled in the seminar. These topics have included all the subjects listed under "Contents."

CONTENTS:
Variable topics, depending on individual student interests. The formal seminar each Spring semester regularly addresses the following topics:

- Base isolation and other advanced seismic design technologies
- Conflicts between seismic design principles and the tenets of Modernism: Was LeCorbusier a murderer?
- Extreme winds: design implications for architects and builders
- Wind and the urban habitat
- Tall buildings: evolution of esthetics and structural concepts
- Fire in buildings
- Lessons from building failures: selected case studies
- The "magic" of prestressed concrete
- Future directions in structural design philosophy: advances in reliability-based design
- The ethics of professional practice

REQUIREMENTS AND INSTRUCTIONS:
Variable, depending on topic and number of credits. The course is repeatable to a cumulative maximum of 4 credits. For the formal seminar, class usually meets once per week for one hour for one semester credit. Grades are determined on the basis of quality of participation, a research paper, and/or a presentation on a technical topic chosen by the student.
ARCHITECTURE 464/564 -- ARCHITECTURAL STRUCTURES IV
3 Credit Hours, Elective Lecture Course, Spring Semester

DESCRIPTION:
Deflection theory; classical and computer analysis for statically indeterminate architectural structure systems.

PREREQUISITES:
Arch 352

INSTRUCTOR:
Carper

OBJECTIVES:
This is the final course in a four-semester lecture sequence offered as an elective for students in Architecture and in Construction Management. A subsequent directed study elective is also available, Arch 498. In this course, a review of basic structural analysis concepts is given. Classical deflection theory is provided and then applied directly to the analysis of statically indeterminate structures-continuous beams and rigid frames. The personal computer is used to supplement hand calculations and fundamental theory throughout the course. The students are exposed to aspects of advanced structural theory and future directions in structural design methodology. Students who lacked confidence in the basic structural theory for statically determinate systems have their confidence and proficiency strengthened, and qualified students are motivated toward further coursework or graduate study related to the technical aspects of architecture.

CONTENTS:
- Review: loads on structures, reactions and bending theory
- Deflection theory
- Area-moment principles
- Double-integration method
- Analysis of statically indeterminate beams and frames
- Consistent deformation
- Moment-distribution
- Approximate methods (portal method, etc.)
- Computer-aided analysis
- Future directions in structural analysis and design

REQUIREMENTS AND INSTRUCTIONS:
The course meets three times a week for a one-hour lecture (a total of 3 contact hours per week.) This course is regularly presented over the Washington Higher Education Telecommunications System (WHETS) simultaneously to students in Pullman and Spokane. Course material is made available through lectures, in-class demonstrations, audio-visuals, assigned readings and homework assignments. The textbook is supplemented by a prepackaged set of photocopied materials.

Grades are based on assigned homework, three in-class examinations and a comprehensive take-home final exam. Each component (homework, three exams, and final exam) contributes 20% to the course grade. Quality of participation is also rewarded.
ARCH 577 - THEORIES AND METHODS OF URBAN CONSTRUCTION.
3 Credit Hours, Architecture Emphasis Elective Lecture Course. Fall Semester

DESCRIPTION
The focus of the course is first upon the formative elements of city development: its morphologies, theoretical concepts, planning strategies and spatial structure. Secondly the course proceeds to analyze the transformation of the city core in major European and American centers following the rapid urbanization of the second part of 19th century, continuing into the 20th.

PREREQUISITES:
Graduate or Senior standing is required

INSTRUCTOR:
Mutin

OBJECTIVES
The objective of the course is to familiarize the students with the morphological elements and spatial structure of the cities permitting them in the second part of the semester to conduct the research of the chosen city and analyze its elements.

CONTENTS
The course at first engages in the study of the morphological elements of urban centers: topography, wall and water defining early city developments in Africa, the Asian continent, Europe and the Americas and connecting those with the forming of city typologies. The course then reviews theoretical planning concepts: e.g. the formulation of the grid, which became the foundation of formal planning in the cities of the ancient world. The evolution and variants of grid planning will be studied ending with the detailed observation of the modern gridiron in the cities of North America and other locations. After defining the morphology and planning principles underlying city development, the course will analyze the elements of cities public spatial structure: important open spaces, major gardens and parks, key buildings and principal boulevards and streets and city imagery. The course next focuses on the import of monumental planning in the principal European and American cities between XVII and XIX centuries. It continues with the study of the transformation of the urban core and commercial growth of the major cities toward the end of the nineteenth century and the related evolution of tall building in American cities.

REQUIREMENTS
The students will conduct studies by preparing figure ground of an open space of their choice, and prepare the models of the Positive and Negative of that space studying entry points, light air, direction of movement and proportion of the space. The students then will conduct the research of the chosen city including comprehensive analysis of its origins, evolution of spatial elements, and study of major developmental factors. The findings will result in a paper and supporting graphic material presented to the class. The research will include origin and nature of the settlement with maps and old photographs, the discussion and interpretation of most influential elements in the development of the city including graphic material documenting public spaces, diagrams documenting city evolution. figure ground establishing the relationship between original city layout and its present pion and photography of the existing conditions if possible in reproduction.
CSTM 102 - INTRODUCTION TO THE CONSTRUCTION INDUSTRY
2 Credit Hours, Elective Lecture Course, Spring Semester

DESCRIPTION:
This course is an overview of the construction industry and an introduction to construction management principles and concepts.

PREREQUISITES:
None

INSTRUCTORS:
Chert

OBJECTIVES:
The basic objective of this course is to increase the student's professional understanding of the construction industry and the role of construction management in the project life cycle. Specific objectives are to:
- Identify the industry sectors and project participants in the life cycle of a project.
- Understand the construction organization and the career paths associated with construction management.
- Recognize the project life cycle and the meaning of project delivery.
- Gain familiarity with common terminology and nomenclature involved in the design, development and construction of a project.
- Understand how to formulate a construction estimate and the relationship of bid and construction documents to the overall construction management of the project.
- Explain what project management is and how the flow and control of information on the project affects its outcome.
- Demonstrate the ability to understand the different roles of project participants and the management of resources for proper project execution.
- Explain how to utilize project controls to control time and money on the project.
- Explain the procurement process as it relates to the project life cycle.
- Recognize the nomenclature used for bonding and insurance requirements for a construction project.
- Introduce the concepts of green building and sustainability as it relates to the construction professional.
- Introduce the rules and regulations for proper safety and health on the project.

CONTENTS:
This introduction class identifies the project participants, project life cycle and the integration of the entire process in regards to the construction manager. We review the resources necessary to assure the successful completion of a construction project. The course will include the introduction of industry terminology, the construction organization and the different career paths available for the construction professional. This includes the introduction of the project life cycle as it relates to issues such as project delivery, project controls, sustainability, direct project objectives and the integration of the construction management professional with different project participants to complete a project. We will introduce concepts built upon the Construction Management Program.

REQUIREMENTS AND INSTRUCTIONS:
Student grading based on lectures, class handouts, guest lectures and a textbook evaluated through quizzes, a mid-term, a final project and final exam. The final project consists of a proposal to provide construction management services to alogistically challenging design build project.
CONSTRUCTION MANAGEMENT 201 -- MATERIALS I
3 Credit Hours, Required CM Course, Fall Semester

DESCRIPTION
This is the first course in the construction materials sequence required of all students pursuing the Bachelor of Science Degree in Construction Management. This course is designed to introduce students to the primary materials used in below-grade building substructures (concrete and masonry) and above-grade building superstructures (Structural Steel and Wood). The course is generally organized consistent with the Construction Specification Institute (CSI) Format common to the architecture and construction industries.

PREREQUISITES
Certification in Construction Management or Architecture

INSTRUCTOR:
Kirk

OBJECTIVES
The goal of the course is to introduce the student to Concrete, Masonry, Steel and Wood as building substructure and superstructure materials. Upon successful completion of this course the student will have competency with respect to terminology/vocabulary, principle properties, key building codes, quality control procedures, specifications and selected problems or issues related to these materials.

CONTENTS:
Part 1: Key Substructure Materials:
   CSI Division 3, Concrete, Text Chapter 13
      Week 1: Concrete
      Week 2: Concrete
      Week 3: Concrete
      Week 4: Reinforcement
   CSI Division 4, Masonry, Text Chapters 8, 9 & 10
      Week 5: Masonry
      Week 6: Masonry
      Week 7: Masonry
   Week 8: Mid Term Evaluation Process
Part 2: Key Superstructure Materials:
   CSI Division 5, Steel, Text Chapter 11
      Week 9: Steel
      Week 10: Steel
      Week 11: Steel
   CSI Division 6, Wood, Text Chapters 3, 4 & 5
      Week 12: Wood
      Week 13: Wood
      Week 14: Wood
   Week 15: Semester Evaluation Process

REQUIREMENTS AND INSTRUCTIONS
Form of Instruction: Lecture. Textbook: Edward Allen. Fundamentals of Building Construction. Wiley, fourth edition. General Evaluation Criteria: 35% Mid-Term Evaluation; 35% End of Semester Evaluation; 20% Vocabulary Quizzes; 10% Attendance and Participation. Plagiarism and Cheating is not condoned by the University, the penalties for this conduct consistent with university policies.
CONSTRUCTION MANAGEMENT 202 - MATERIALS II

3 Credit Hours, Required CM Course, Spring Semester

DESCRIPTION:
This is the second course in the construction materials sequence required of all students pursuing the Bachelor of Science Degree in Construction Management. This course is designed to introduce students to the primary materials that are used in the construction of typical building envelopes, interiors, interior surfaces and finishes. This course is generally organized consistent with the Construction Specifications Institute (CSI) Format common to the architecture and construction industries. Successful completion of CstM 201 Materials I is required before enrolling in this course.

PREREQUISITES:
Certification in Architecture or CM, Math 171 or 206, Phys 101 or 201

INSTRUCTOR:
Kirk

OBJECTIVES:
The goal of course is to introduce the student to the construction materials commonly used in building envelopes, interior surfaces and finishes. On successful completion of this course the student will have competency with respect to the terminology/vocabulary, types, key building codes, quality control, specifications and selected problems or issues related to the use of these materials.

CONTENTS:
Building Envelope:
CSI Division 7, Thermal and Moisture Control, Text Chapters 2, 7, 16, 17, 18, 19, 20, 21
- Week 1: Roofing
- Week 2: Roofing
- Week 3: Flashing
- Week 4: Cladding
- Week 5: Cladding
- Week 6: Windows
- Week 7: Waterproofing
- Week 8: Midterm Exam
Midwall:
- Week 9: Insulation – Text Chapter 22
- Week 10: Fire Protection
Interiors and Interior Surfaces
CSI Division 9, Finishes, Text Chapter 23
- Week 11: Gypsum Board (Drywall), Text Chapter 24
- Week 12: Acoustical Ceilings -
- Week 13: Flooring-Vocabulary, Text Chapter 6
- Week 14: Paint, Text Chapters 7 & 18
- Week 15: Doors/Hardware
- Week 16: Final Exam

REQUIREMENTS AND INSTRUCTIONS:
Form Of Instruction Lecture.
Grading: 35% Mid-Term Evaluation; 35% End of Semester Evaluation; 20% Vocabulary Quizzes; 10% Attendance and Participation
Plagiarism and Cheating is not condoned by the University, the penalties for this conduct will be consistent with all university policies.
CONSTRUCTION MANAGEMENT 252 - PROJECT MANAGEMENT, CONTRACT ADMINISTRATION
Credit Hours 4, required CM Course, Fall and Summer Semester

DESCRIPTION:
The study and understanding of project management and administrative procedures found within construction projects and the respective communication, interpretation and documentation required. The course addresses the core requirements of project management through investigating the practices primarily used in administering a construction project. Included is a basic understanding of plans and specification as contract documents.

PREREQUISITES:
Certification in Architecture or CM

INSTRUCTOR:
Chert, Gunderson

CONTENTS:

CONTRACT ADMINISTRATION TO PROJECT MANAGEMENT
  Project Management consists of phases, groupings, types, processes and systems
  Understanding Project Controls/ Communication/Correspondence/Control
  Contract documents, document control and contract types
  Job Start-up, buyout and the procurement process

PROCUREMENT/SELECTED PROJECT PLANS/SPECIFICATIONS
  The Procurement Process-Submittals to Delivery-Design Coordination
  Introduction to the Documents/Drawing Conventions/Grid Lines/Locations
  Vertical Control-Where Do You Start-
  Quality Control and Assurance on the Project

SELECTED PROJECT - SPECIFICATIONS
  Below slab systems
  Concrete Construction
  Field Trip/Structural Steel
  Anchor bolts/structural basics/Structural Steel

FIELD MANAGEMENT & QUALITY SYSTEMS
  Structural Steel/Shop Drawings
  Rough Carpentry
  Architectural Systems/Mechanical/Plumbing/Electrical Drawings

PROJECT CONTROL SYSTEMS-PROJECT STATUS/CONTROL/PAYMENT
  Correspondence/Student Project Manual Review
  Brick Veneer-The Bid Process
  Mock Bid Review/Quality Systems /Final Project Handout
  Brick Veneer Mock Bid Day

THE FLOW & CONTROL OF INFORMATION
  Change Control Systems/Managing Change
  Payment/Cost Control/Progress Reporting/Cash Flow
  Project Close Out/Commissioning
  Final Beam/Project Manual Due

REQUIREMENTS AND INSTRUCTIONS:
TEXT/DOCUMENTS/REFERENCES: Plans/Specification Package-Selected Project; Handouts (sometimes purchased); Articles; Other Texts
EVALUATION: Project Manual 603; Mock Brick Veneer Bid 103; Final Beam
CONSTRUCTION MANAGEMENT 253 - CODES AND ZONING
3 Credit Hours, Required Lecture / Lab Course, Fall Semester

DESCRIPTION:
This class studies the 2006 International Building Code and supporting documents as a means to provide designers a sense of how to understand the code application process by first reviewing each major chapter, then applying them in several design scenarios. Actual building projects are studied in context, along with varying plan review interpretations. Guest lecturers cover specialized topics, such as sprinklers, and city building departments.

PREREQUISITES
Certification in Architecture or Construction Management

INSTRUCTOR:
Burnett

OBJECTIVES:
Zoning
The purpose of this class component is to understand how each city expresses its desires and aspirations to control city growth, character and sense of community via zoning. There are some similarities (each has commercial, residential areas), however the expression is quite different between cities across the nation. We do this by lectures, readings and a practical problem: find out what it takes to fit a selected project into each of three cities. The students learn the expectations of a developer, and the logistics of obtaining a building permit.

Codes
The base objectives of this course for students of construction to understand the process of design as it relates to public health, safety and general welfare, then observe the practical implementation by proper use of building systems and materials. The building code lectures take the students through the design sequences mentioned above, then they study building designs by being given actual project working drawings and taking the plan reviewers point of view, in determine code compliance and alternative designs.

REQUIREMENTS AND INSTRUCTIONS
We begin by studying city zoning theory and practice from excerpts of Herbert Smith's "The Citizen's Guide To Zoning", "the Zoning Board Manual" by Fredrick H. Bair, Jr. and "City Zoning" by L. Weaver and Richard F. Babcock. We study land use policy by selecting hypothetical Clifford projects and researching the procedures for permitting construction in three cities (Pullman, Spokane and Seattle). We use each city's public web resources to guide us through all of the steps in project permitting and approvals. Student teams present (via power point) the results of their web searches relative to their selected project. Additional detail is provided in a class handout. While the students work on zoning projects, we await copies of the 2006 International Building Code and student ICC student memberships. We study (via lecture and review of working drawings) how building codes provide the minimum requirements for safe design and construction. We start with the steps in code compliant design (occupancy, general building limitations, types of construction, fire resistant construction, means of egress, access), then explore building systems and materials (exterior walls, roofs, structural loading, concrete, masonry, steel, wood, glass & glazing, plumbing, conveyance systems, public way and existing structures).
CONSTRUCTION MANAGEMENT 360/462 – PLANNING AND SCHEDULING

3 Credit Hours, Elective Lecture/Lab Course, fall Semester

DESCRIPTION:
This course covers the principles and concepts required to plan and schedule construction projects. We review the tools available to assure the successful completion of a project through the project life cycle by utilizing proper planning and scheduling techniques.

PREREQUISITES:
Certification in Architecture or CM, CSTM 102, CSTM 252, ARCH 301 or CSTM 201

INSTRUCTOR:
Chert

OBJECTIVES:
The basic objective of this course is to develop the student’s ability to plan and schedule utilizing construction industry techniques and tools. This includes the understanding and development of the following objectives:

1. Develop the tools as a Project Manager to utilize the Critical Path Method for planning and scheduling projects.
2. The ability to develop a work breakdown structure, utilize milestones, identify activities and production routes to develop an activity network.
3. Teach an understanding of the importance of good planning and scheduling techniques for all facets of the project life cycle.
4. Understand the basic six steps to plan and schedule any project.
5. Through examples, understand the contract requirements, the ownership of float, earned value, progress measurement and physical percent complete as it relates to managing a construction project by a project schedule.
6. Develop a resource curve through resource loading, resource utilization and resource leveling of the projects resources.
7. Become familiar with bar chart schedules, short interval scheduling, look-ahead schedules and identifying the ability to develop work packages to meet project deadlines.
8. Review the games played by project participants in regards to project scheduling.
9. Understand the management of change on a project by updating, analysis, reviewing delay issues and the impact of changes to a baseline schedule.
10. Develop a Critical Path Schedule utilizing a pencil, Primavera software and Microsoft Project software.

CONTENTS:
The course will include the understanding of industry terminology, planning and sequencing construction projects, basic scheduling techniques, activity identification, schedule development, calculations, updating and resource planning. The class provides the student hands on opportunities to work with the Precedence Diagram Method and the Critical Path Method of scheduling for construction projects. Computer based scheduling software will be introduced through Primavera and Microsoft software products.

REQUIREMENTS AND INSTRUCTIONS:
Through lecture and the application of the technique in lab, a student's lab assignment is graded on how well they perform each application. A midterm exam is given to assure the student understand all the basic concepts for proper planning and scheduling the critical path method (CPM). Each student will submit three CPM schedules based on three unique projects as their final project assignments.
CONSTRUCTION MANAGEMENT 362 -- LEGAL ASPECTS OF CONSTRUCTION AND DESIGN
3 Credit Hours, Required Lecture Course. Fall Semester

This course was created primarily for undergraduate construction management and architecture majors, and comprises a study of key elements of statutory and common law governing the practice of design and construction in the United States. Attention will also be devoted to aspects of architectural and construction project contract administration aimed at preserving contract rights and remedies, avoiding disputes and reducing exposure to monetary loss. The course delivery method is lecture, augmented by homework assignments requiring the consideration of representative court decisions related to certain lecture topics, and quizzes on selected topics.

PREREQUISITES:
Certification in Architecture or Construction Management

INSTRUCTOR:
Heustis

REQUIREMENTS AND INSTRUCTIONS:

EVAULTION: Each student's final grade will be the result of the following graded work, with the indicated weighting: Homework: 30%; Quizzes 10%; Mid-term Exam: 30%; Final Exam: 30%

WRiTNG (in general): With respect to the law: words, clarity and correctness of written expression are of extreme importance; therefore, it is expected that any written work submitted in this course (exam, quiz and homework) will be written at a professional (darn near perfect) level of quality. Correct word choice, spelling, grammar, punctuation, sentence structure and organization is expected for all written work, and scoring will reflect this expectation.

WRiTNG IN THE MAJOR: This course is designated as a "Writing in the Major" course. There will be at least two "pure writing" assignments of at least one page in length required of each student. In addition, each of the four (4) homework assignments distributed periodically throughout the course require at least one (1) page of writing. Collectively, the "pure writing" assignments and the homework assignments comprise 30% of the student's final course grade, and a major component of the grade for each assignment is the quality of the students' writing. All students will receive significant feedback regarding the quality of their writing on each of these assignments. If the writing is not of acceptable quality then the student will be required to re-write the assignment until it is resubmitted with acceptable quality.

NOTES ON MINIMUM STANDARDS: Revising Acceptable Work: If a student receives a score of 70 or above on any assignment for which writing is a major component, and if the writing quality (not correctness of content) was judged to be "poor" on that assignment, the student may revise that assignment with respect to writing quality and resubmit the assignment for re-evaluation.

Revising Unacceptable Work: The professor reserves the right to issue a temporary score of "O" on any individual homework assignment, quiz or exam receiving a% score of less than 70%, or otherwise considered by the professor to be of unacceptable quality. If a student receives a temporary score of "O" on any course element, the student will be given one chance to re-submit the course element at a future specified time and at a near perfect level of quality. If the student does this, the temporary score of "O" will be replaced with the originally received score for the course element. If the student does not do this, then the temporary score of "O" will become permanent. Any student who, at the end of the course, has a score of "O" on one or more elements of the course will receive a final grade of "F" for the course. THERE WILL BE NO FINAL GRADES OF "D" issued in this course. Students must obtain a min score of 70 to pass.
CONSTRUCTION MANAGEMENT 370 - ESTIMATING I
3 Credit Hours, Required Course, Fall Semester

DESCRIPTION:
Estimating is an art and a science, with heavy emphasis on craftsmanship and the routine procedure of the estimator dedicated to the needs of his or her company. In CST M 370 we will examine various terms and concepts and how they apply to the three basic elements of estimating: quantity survey, price extension and bidding. In addition, CST M 370 will deal with topics of the art of quantity survey, the science of pricing, change orders, special estimates, value engineering, ethics and many more. Lab and homework exercises will be used to apply practical knowledge to the estimating process.

PREREQUISITES:
Certification in Construction Management or Construction Management Minor; Cst M 252 or a Civil Engineering Student

INSTRUCTOR:
Peschel

OBJECTIVES:
Upon completion of this course, students shall be able to:
   a. Review quantity survey concepts acquired.
   b. Examine various procedures in performing quantity surveys and set-up procedures.
   c. Understand the art and science of price extensions with emphasis on the philosophy of labor productivity and equipment cost.
   d. Understand the concept of applying labor to an estimate.
   e. Understand the concept of applying material to an estimate.
   f. Apply basic concepts of reading working drawings and techniques of quantity survey.
   g. Perform line item costs from work up sheets to general estimating sheets.
   h. Estimate job overhead and understand its relationship to the total cost of the project.
   
   What is not covered in this course is bidding and extension pricing. This course concentrates on the art and the science of creating line items from the working drawings, with extensive review of the philosophy of creating labor line item cost based on production and material cost. We will not use "canned" cost books (e.g. R.S. Means). The goal is for you the students to be able to create any line item cost that is needed today and into the future.

REQUIREMENTS:
Evaluation

1. Assignments &/or Homework 503
2. Quizzes 253
3. Attendance & Participation 253
   Total: 1003
CONSTRUCTION MANAGEMENT 371 - ESTIMATING II
3 Credit Hours, Required Course, Spring Semester

DESCRIPTION:
Estimating is an art and a science, with heavy emphasis on craftsmanship and the routine procedure of the estimator dedicated to the needs of his or her company. In Cst M 371 we will examine the applicable terms and concepts and how they apply to the three basic elements of estimating: quantity survey, price extension and bidding. In addition, Cst M 371 will deal with the topics of change orders, special estimates, value engineering, ethics and various others. Lab and homework: exercises will be used to apply practical knowledge to the estimating process, such as bidding, and computer applications to estimating problems.

A key component of this course will be incorporating a realistic integration element requiring a considerable investment of time researching and assigning value to constructability issues and developing a conceptual estimate while working in a team environment with 3rd year Architecture students. This component will require a significant commitment on the part of the Construction Management students, Architecture students as well as the participating faculty involved with this process in order to make this a successful integration experience. This experience will simulate "real world" circumstances that a Construction Manager would be a part of and, therefore, shall be approached in the same professional manner.

PREREQUISITES:
Certification in Construction Management; Cst M370.

INSTRUCTOR:
Peschel

OBJECTIVES:
Upon completion of this course, students shall be able to:

2. Examine various procedures in performing quantity surveys and set-up procedures.
3. Understand the art of price extensions with emphasis on the philosophy of labor productivity and equipment cost.
4. Understand the concept of applying labor to an estimate.
5. Understand the concept of applying material to an estimate.
6. Apply basic concepts of reading working drawings and techniques of quantity survey.
7. Perform line item cost from work up sheets to general estimating sheets.
8. Estimate job overhead and understand its relationship to the total cost of the project. Produce simulated bids through evaluating subcontractor's bids and other construction procedures.
9. Estimate general conditions and waste factors.
10. Determine and evaluate constructability issues and develop a conceptual estimate through interaction with 3rd year Architecture students.

REQUIREMENTS:

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<thead>
<tr>
<th>EVALUATION</th>
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<tbody>
<tr>
<td>Bid Project &amp; Conceptual Estimate Project</td>
<td>353</td>
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<tr>
<td>Hot Seats</td>
<td>253</td>
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<tr>
<td>In-class Projects/ Homework:</td>
<td>203</td>
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<tr>
<td>Quizzes</td>
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<td>Attendance &amp; Participation</td>
<td></td>
</tr>
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<td>Total</td>
<td>1003</td>
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CONSTRUCTION MANAGEMENT 457 - CONSTRUCTION METHODS AND PROCESURES II
3 Credit Hours, CM Required Course, Spring Semester

DESCRIPTION:
This course covers methods and procedures for constructing a structure from the ground elevation up and corresponding requirements. The content of this course builds on information learned in Arch 330, Materials, and Cst M 465, Construction Methods & Procedures I. The construction materials and methods discussed will be presented as integrated aspects of different construction systems that might be incorporated in residential, commercial and/or heavy/civil construction projects. In Cst M 457 students will explore wood, concrete, and steel systems used in structures. In addition, students will become familiar with various wall types, exterior and interior, glass and glazing, and finishes. In Cst M 457 students will learn about protecting the structure from the environment including thermal and moisture control and seismic.

PREREQUISITES:
Certification in Architecture or Construction Management, Cst M 456, Construction Methods & Procedures I

INSTRUCTOR:
Gunderson

OBJECTIVES:
Students will be expected to:
• Understand residential, commercial, and heavy/civil construction systems, materials, and practices.
• Integrate knowledge of plans, specifications, product data submittals, shop drawings, and other construction documentation as they pertain to construction.
• Evaluate the technical specifications and the relationship to the materials and installation as a system.
• Explain the complexity of crews, equipment and planning in constructing a residential, commercial, and/or heavy/civil structure.
• Critique various systems and materials and integrate them into the structure as a whole.

CONTENTS:
• Building Systems, Value Engineering, Sustainable Construction
• Soils/Excavation, Foundations
• Concrete Construction, Sitecast Concrete, Pre-Cast Concrete
• Masonry, Structural Steel Framing, Structural Timber Framing
• Roofing Systems, Glass & Glazing, Building Exterior Systems
• Selecting Interior Finishes, Interior Walls & Partitions, Finish Ceilings & Floors
• Doors & Hardware

REQUIREMENTS AND INSTRUCTIONS:
Evaluation and Grading: 750 points= Exams (3@ 100 each)300 points: Final Exam (Cumulative) 150 points; Quizzes 50 points; Assignments 150 points; Participation100 points. There will be no D's awarded in this course. A score of 524 points or below earns an F
Assignments are completed outside of the class. Homework is due at the beginning of class. Assignments turned in late will not be accepted.
Students are expected to spend between 6 and 9 hours per week studying outside of class.
CONSTRUCTION MANAGEMENT 460 - CONSTRUCTION COST MANAGEMENT
3 Credit Hours Required CM Course, Fall Semester

DESCRIPTION:
This course investigates principles and practices of budgeting, tracking and managing construction costs at the project level, providing a basic understanding of techniques for monitoring and reporting construction company profit/loss at the corporate level.

PREREQUISITES:
Certification in Architecture or Construction Management, junior/senior level

INSTRUCTOR:
Heustis

OBJECTIVES:
To provide the student with a detailed understanding of principles and practices of budgeting, tracking and managing construction costs at the project level and a basic understanding of techniques for monitoring and reporting construction company profit/loss at the corporate level.

CONTENTS:
Lectures covering the following construction cost management topics:
• Basis control theory
• Construction Project Budgeting
• Construction Project Task Re-budgeting
• Monthly progress Billings
• Work in progress Cost reports
• Cost Variance Analysis
• Project Auditing
• Corporate Profitability Reporting

Assignments in support of the lecture topics requiring students to produce a:
• Construction Project Budget
• Task Re-Budget
• Billing Documents
• Cost Variance Analysis
• Cash Flow report

REQUIREMENTS AND INSTRUCTIONS:
Evaluation
303 Project Budget 103
Task Re-Budget 53
Billing Documents 53
Cost Variance Analysis 53
Cash Flow report 53

703 Midterm Exam 303
Final Exam 353
Work-in-Progress Quiz 53
CONSTRUCTION MANAGEMENT 475 -- SENIOR CAPSTONE PROJECT
3 Credit Hours, Required CM Course, Spring Semester

DESCRIPTION:
Students will organize into teams of five (5) students each, thereby forming multiple mock construction companies. Each company will prepare and present a proposal to an owner group (comprised of CM faculty and local industry representatives) that is about to commence a major construction project. A CM at Risk project delivery system is specified for the project. Each company will compete for the same project and respond to the same Request for Proposal (RFP).

PREREQUISITES:
Senior standing

INSTRUCTOR:
Heustis

OBJECTIVES:
This course is intended to provide an opportunity for senior CM students to synthesize and apply key knowledge and skills developed in previous CM courses. Students will do this by engaging in a simulated “real world” competition for the award of major construction project to be completed in a CM at Risk (CM/GCJ format).

CONTENTS:
The Senior Project course will comprised of weekly mandatory lecture meetings and activity sessions. During the mandatory weekly lecture meetings the professor will discuss the required elements of the proposal and offer suggestions as to presentation content and strategies. The professor will not be re-teaching the material elements of the course (i.e. cost estimating, scheduling, project management, etc.) – it is assumed that senior CM students already know this material. During the mandatory weekly activity sessions student teams will work independently to complete their proposal and to prepare for the owner presentation. Team presentations to “the owner group” will occur at the end of the semester, on a day and at a time to be specified.
Lecture content and milestone work product requirements and due dates are as depicted in the Senior Project Course Schedule attached to this syllabus.

Note: An important aspect of this course is that senior CM students organize, monitor and direct their own work as individuals and as members of a team. The professor will act as a resource but, will not direct work. Students are alerted to the most dire consequences of lassitude and/or procrastination.

REQUIREMENTS AND INSTRUCTIONS:
TEAM REQUIREMENTS:
1. Each team will designate a "project captain", who will coordinate the team. Each team will be comprised of five (5) self-selected student members.
2. It is expected that teams will meet during the mandatory weekly activity sessions, as well as out of class time as the work may require.
3. Each team member will submit a weekly time card to the team captain, who will then approve the time card and submit copies to the Professor.
4. Each team will designate a: Chief Executive Officer (CEO), Project Pre-Construction Manager, Project Construction Manager, Project Superintendent, Project Cost Estimator.

EVALUATION: Participation 15% of final grade; Milestone Work Product 30% of final grade; Final Proposal 30% of final grade; Presentation 25% of final grade.

WRITING IN THE MAJOR: A major component of the grade for the Milestone Work Product and the Final Proposal, is the quality of the students’ writing.
4.4 Faculty Resumes
JOHN H. ABELL, PhD, M Arch, AIA

RESUME

EDUCATION:
Master of Architecture, University of Utah 1985
Bachelor of Science in Resource Economics, University of Vermont 1982

TEACHING EXPERIENCE:
Associate Professor, School of Architecture, WSU at Spokane 1991-present

The Catholic University of America, School of Architecture and Planning, Graduate Design Studio, Undergraduate Design Studio Program and Summer Institute 1990-91

Thursday, March 30, 2006, Audian Theater, Pullman, WA.

PUBLICATIONS/RESEARCH/CREATIVE WORK:
- "Theory Informatics Architecture," paper delivered at the public WSU Theory Symposium,
- Mother Child Wall creative design research poster, WSU Showcase, Spring, 2005.


• "Growth Management Forum," AIA Spokane journal, Spokane Washington, Septl 996.


• Abell, J., Schindler, Richard. Collage City" Installation and Exhibition, City of Spokane City Hall, January, 1995.

HONORS/AWARDS/GRANTS

- Abell, John., O'Day, Tom; Davis, Glen; Co-Curators, *The Perspective Project-Tug of War Exhibition*, Interdisciplinary Design Installation by Peter Wiehl (Video Artist) NYC, and Smith Miller Hawkinson Architects, NYC, SFCC Gallery, Spokane, Washington, April 2-May 4, 2002, Grant proposal and exhibition funded $2,000 by the Sahlin Foundation, Spokane
- Co-Chair 1999 ACSA/ AIA National Teachers Seminar on Interdisciplinarity, appointed by the President of the American Collegiate Schools of Architecture, Cranbrook Academy of Art, Bloomfield Hills, Michigan.
- Abell, J., Faculty Director, and Farrell, Karin., (B Arch 1999), "Main Street Mixed Use Housing Design Research Project," 1999, funded $2500 by the Downtown Spokane Partnership Ventures Board, Spokane Washington
- AIA Spokane Chapter Special Citation, 1998, *Daydreaming Spokane, framing the extraordinary qualities of everyday places in the city*, monograph. Project Director and Editor, with students.
- AIA Spokane Chapter Special Citation, 1996, *Public Markets Civic Streets, a guide to real and imagined public markets*, monograph, with students.

PROFESSIONAL  PRACTICE:
John Abell, AIA, Spokane WA Present - 1990
Keyes Condon Florance Architects, Washington, DC 1990-87
Hallet Hermanson Knudsen Architects, SLC. Utah 1987-83
Prescott Muir Architects, SLC
Northern Engineering Associates, Burlington, Vermont

PROFESSIONAL  AFFILIATIONS:
Member of American Institute of Architects, Spokane, Washington Chapter
Registered Architect, State of Utah
Member, The Architectural Association, London, England

SERVICE ACTIVITIES:
M Arch WSU Spokane, Netherlands Travel Study Tour Coordinator, 2005, 2006.
M Arch Coordinator-Spokane, 2003-2006, WSU School of Architecture and CSTM.
5th Year Undergraduate Arch Studio Spokane Coordinator, 1991-2003, WSU
Doctor of Design Graduate Program Com, Interdisciplinary Design Institute, 2004-present.
Chair SOACM Spokane Faculty Search, Assist Prof of Architecture for design position, 2003
SOACM Spokane Faculty Search, Assist Prof of Architecture for design position, AY 2006.
Interdisciplinary Design Institute, WSU Spokane Faculty Search, Assist Prof, AY, 1994, 2006.
WSU Spokane Interdisciplinary Design Institute Tenure and Promotion Mentoring Committees: Nancy Clark-Brown, WSU Assistant Professor of Interior Design, Mathew Melcher, WSU Assistant Professor of Interior Design, Mathew Cohen, Assistant Professor of Architecture.
Media Technology Committee, School of Architecture and Construction Management. 2002.
Davenport Arts and Entertainment District Committee. 1994.
DEBORAH ASCHER BARNSTONE. R.A.

EDUCATION
PhD, Delft University of Technology 2004
Master of Architecture. Columbia University 1992
Bachelor of Arts cum laude degree High Hon. Barnard College, Columbia University. 1981

ACADEMIC EXPERIENCE:
Assistant - Associate Professor of Architecture. WSU Pullman, WA. 1997-present
Guest Professor of Architecture, Dalhousie University, Halifax, Nova Scotia. Spring 2001
Assistant Professor of Architecture. Ball State University, Muncie, Indiana. 1996-1997
Lehr Beauftragterin (Assistant Professor). Köln Fachhochschule, Germany. 1994-1996
Adjunct Professor. Boston Architectural Center, Boston, Massachusetts. 1993

PUBLICATIONS
• Consultant and script-writer for A Clear Vision the upcoming WGTE. May 2005-present.

**DESIGN WORK:**
- Iron Colt Housing, Rossland, B.C. Ascher Barnstone Arch. Jan 2001-present.
- Workshop/Studio, Rossland, B.C. Ascher Barnstone Arch. 1998.
- Masserberg Kur Klinik: Masserberg, Germany. ESW Architects. 1996.
- Berlin Jewish Day School Competition. Lalo Sylberberg Arch. September 1990.
- Kaarst City Center Project: Kaarst, Germany. ESW Architects. May-September 1990.
- Nippes City Hall Competition: Germany. ESW Architects. May-September 1990.

**AWARDS:**
- Association of Collegiate Schools of Architecture National Service Award. 2003
- Association of Collegiate Schools of Architecture National Design Award. 1998
- First prize Indiana Sukkot Competition and the commission to build the design. April 1997.
- Commendation for outstanding research WSU SOCAM, Convocation, Spring 2002.
GRANTS AND FELLOWSHIPS:
- Technical University of Delft for May 2006.
- Washington State University Travel Fellowship May 2006.
- British Travel Authority Travel Grant, April 2003.

PROFESSIONAL MEMBERSHIPS:
- Registered architect. Architektenkammer Nordrhein Westfalen, Germany, since May 1995.
- German Studies Association, since Spring 2004.

PROFESSIONAL SERVICE:
ROBERT V. BARNSTONE
RESUME

EDUCATION

Bennington College, B.A. Architecture and Sculpture.

Graduate School of Design, Harvard University M. Arch I, 1991
1984
Indiana University (Bloomington, IN), 1982-1983
George School (Newtown, PA) Diploma, 1978

TEACHING EXPERIENCE

Washington State University, Pullman, Washington. Associate Professor. 1991

Ball State University, Muncie, Indiana. Assistant Professor. 1996-1997

Koln Fachhochschule, Koln, Germany. Lehr Beauftragter, 1993-1995

Boston Architectural Center. Boston, MA, Spring 1993

School of the Museum of Fine Arts, Sculpture Faculty, Fall 1992, Spring 1993

Graduate School of Design, Harvard University, Studio TA for Homa Fa ardi. Fall 1989

Harvard University, Studio TA to Ritsuko Toho in the sculpture department. Spring 1987

PUBLICATIONS

- Convergence, the history of art at the Roger Williams Sculpture Park in Providence, Rhode Island. Fall 2003
- Azure, article on the installation piece at the University of British Columbia Exhibition, May/June 1999.
- The Harvard Architecture Review. Editor of Issue Number 10, Positions.
- Song of Standing on a Star's Edge, a sequel to A Day in the Country, Harper & Row. With
Willis Barnstone.

CREATIVE WORK
- Iron Colt development Rossland BC, Canada, 2001- present.
- Fukuda Home, Odos Persious, Serifos, Greece. 1995-present.
- Miller/Powell House, Bloomington, IN. 1996.
- Tzalapoulou Beach House, Ganema Serifos Greece. 1995-present.
- Model House, Ano Hora, Serifos, Greece. 1994.

COMPETITION PRIZES
- Socrates Sculpture Park Annual Competition, September 2000.
- International Design Competition "Bigger than a Breadbox Smaller than a House", University of British Columbia, Apr 1999.
- Indiana Sukkot Competition. First prize and the commission to build the design. Apr 1997.

AWARDS
- Outstanding Teaching Faculty Member, in Architecture, WSU, College of Engineering and Architecture, Spring 2003.
- Young Faculty Recognition, Convocation, College of Engineering and Architecture, Recognition for Scholarly work, 2002.
- National Historic Preservation Award, Barry Estate, Madison WL Coda Architects, Fall 1991.
- My student, Eric Jobes, received an Honorable Mention Award, from the AIA Spokane Chapter. Fall 1998.

PEER REVIEWED EXHIBITIONS

CURATORIAL WORK
Curator For WSU Architecture Galleries My responsibilities include showing international and national exhibitions and student work. 1997-present. For the first time at WSU, I am originating traveling exhibitions. In Academic Year 2002-2003 I originated a retrospective of work by WSU graduates and recipients of the AIA Award for Design Excellence, Miller Hull, and Seattle-based Eric Cobb Architects.


GRANTS
$3,000, VPLAC, Washington State University, to support Afghanistan Land of Ught and Shadow.
In-kind donations worth approximately $8,000 from Boise Cascade for the framing of the box beams at the Wood Materials Engineering Laboratory. Summer 2003.
KENNETH L CARPER

EDUCATION:
MS Civil Engineering (Structural), Washington State University 1977
BArch, Washington State University 1972

TEACHING EXPERIENCE:
Professor, School of Architecture & Construction Management, WSU 1987-present
Associate Professor, School of Architecture, WSU 1981-1987
Assistant Professor, Department of Architecture, WSU 1974-1981

SELECTED PUBLICATIONS:

Books:

Selected international publications (from over 60 peer-reviewed publications):
- Founding Editor-in-Chief, ASCE Journal of Performance of Constructed Facilities (1986-present). This is the leading international peer-reviewed technical journal on the causes and costs of failures & performance deficiencies in the construction industry. It is published bi-monthly. (82 issues published under Carper's direction.)


HONORS/ AWARDS:

Selected teaching awards:
- President's (Sahlin) Award, (the all-WSU outstanding faculty member award,) 1994.
- College Teaching Faculty Award, College of Engineering & Architecture, WSU, 1985.
- Honors Faculty Award, WSU Honors College, 1999.
- Excellence in Research Award, WSU School of Architecture & Construction Management (twice: 1989 and 2005.)

Selected professional awards:
- 140 invited presentations to professional groups of architects, engineers, contractors and building officials in the US, Canada, Europe, UK, India, China, Taiwan and Japan.
- National Richard R. Torrens Award, ASCE, 2006. (only person to receive this honor twice.)
- National Forensic Engineering Award, ASCE. 1997.
- Engineer of the Year Award, Inland Empire Chapter, ASCE, 1994.
- National 1983 Daniel W. Mead Award, ASCE.
PROFESSIONAL REGISTRATION:
Registered Architect, State of Washington 1973-present
RICKY WAYNE CHERF

EDUCATION:
Master of Science in Engineering Management, WSU (Anticipated graduation Fall 2008)
B.Science in Construction Management/Construction Technology, University of WA, 1981
Bachelor of Arts in Business Management/Labor Relations, University of Washington, 1981

TEACHING EXPERIENCE:
Assistant Professor, School of Architecture and Construction Management, Washington State
University, Pullman Campus August 2003 to Present
Visiting Assistant Professor, Interdisciplinary Design Institute-Construction Management,
Washington State University Spokane, Washington Campus, August 2003 to April 2006

PUBLICATIONS/RESEARCH/OUTREACH EDUCATION
• A+CM Integrated Education Symposium, Facilitator, Team Building and Leadership,
Constructing America Lecture Series, A bi-yearly lecture series: Responsible Wealth: Real
Financing/Re-Design Cost Analysis, Quality in Design and Construction, February 2006;
• Estate Development- Fall 2005; In-House Design Build Services Spring 2006
• Washington Achievers Scholars Mentoring Program, for multi-cultural students: 2005-6
• Cougar Quest, grades 7-8 and 9-12 understanding the building process. July 2004
• Managing the Project: The Supervisor’s Role, Project Management Techniques 2003
• Construction Management Kabul Workshop- Planning & Scheduling Projects, Kabul,
Afghanistan- Afghan Governance and Legal Reform Project through USAID March 2006
• Design-Build in Washington Seminar, owner’s perspective related to the design-build
delivery method for the public sector: October 2004
• Construction Management/Design-Build Seminar, the legal, bonding, insurance and risk
aspects associated with design-build delivery methods December 2003
• Fifth Annual Northwest Construction Consumer Council Construction Conference and
Exposition- construction techniques utilized during a sequence at a Refinery 2003
• Northwest Energy Council Workshop- craft based incentive programs July 1993
• Harvest House Remodel Project,
• Sunnyside Elementary Greenhouse Project,
• Manuscript review Design/Build Projects of Incineration Plants in Taiwan for the Journal of
Performance of Constructed Facilities, ASCE-American Society of Civil Engineers

CONSULTING
• Land Development 25-Acre Site, Whitman County Fall 2006
• Mediation/Punch List Review Multi Family, Pullman, Washington, Fall 2006
• Planning and Scheduling nine Judicial Facilities, Kabul Afghanistan March 2006
• Expert Witness on proper bid award for a public works project, Lewiston, ID Summer 2005
• Contract review, design and field coordination for a Multi-Family Developer Fall 2005
• Business/Marketing Plan Start-Up Services September 1996-January 2003
• Pipeline Aircraft Fueling provide design-build contract services. January to April 2002
• Pier 53 Development, feasibility and schematic design for waterfront Jan to June 2001
• Fashion Show Mall Central Plant, pre-construction services for a DBOM chiller system 2001
• USA Terminal Expansion Program, coordinate Alliance design professionals and
contractors for a ten-terminal turn-key design-build program July 2000 to February 2001
• Reid Vapor Pressure $350M Expansion, program team member July-December 1994
• Bill Gates "Cyber Residence"-estimating services for pre-construction 1990
• Stuart's Restaurant- analyze failure of the exterior siding for an extensive renovation. 1990
• Medical Center Atrium Courtyard program for waterproofing OR Room 1985
• Mauna Lani Hotel, analyze a structural concrete excessive cost overrun. May 1984
• Gateway Plaza, pre-construction services on a design-build 25-story office complex 1984
• Dole Fitness Centers, roll out of an island wide fitness initiative of four facilities. 1984
• Royal Sea Cliff/Kaanapali Alii project turnover for client 1984
• Total Construction Services, Inc., Mount Vernon, Washington January 2001-May 2002;

CONSTRUCTION INDUSTRY EXPERIENCE

August 2003 to Present Principal/Consultant
• Area Manager/Senior Project Manager
• Matrix Service Company; MTRX (NASDAQ) - Tulsa, Oklahoma July 1991 - January 2001
• Executive Vice-President- Construction Services Division, North/South America
• Senior Program Manager- Chevron USA, New loading system for existing 24-hour facilities
• Senior Project Manager- ASIMI, Upgrade of a high-purity polycrystalline silicon facility.
• Transition Team Leader/Program Manager- "Smart Buy" Alliance West Cost Refining
• Senior Project Manager- New ISOM Feed Unit in an existing refinery
• Quality Control Manager- Total Refinery emergency FCCU shutdown, an emergency revamp.
• Site Manager- Los Angeles Oil Refinery under the refinery capital plan
• Project Controls Manager- ARCO Cherry Point RVP Project, A four-unit expansion
• Strand Company, Kirkland, Washington March 1990- July 1991
• Senior Project Manager/Project Team Leader- Cape Fox Lodge,
• Project Manager/Estimator-Carlton Block Development, Red Dot Manufacturing,
• Enserch Alaska Construction- Anchorage, Alaska November 1985-March 1989
• Operations/Group Manager/North Slope Corporate Liaison-
• Project Control Manager- The largest offshore arctic oil production facility in the world
• Dillingham Pacific Corporation/Hawaiian Dredging and Construction- Hawaiian Islands
• July 1981-November 1985
• Senior Project Engineer- Queens Medical Center
• Electrical/Mechanical Coordinator- Ten new floors to the hospital
• Project Engineer for the New 450 room Halekulani Hotel
• Cost Engineer on a pre-cast concrete twenty-story office development, plaza remodel
• Del Guzzi Construction- Port Angeles, Washington 1979-81 Field Engineer/Superintendent
• Residential Home Builder eighteen single family custom homes.
• Owner/Partner in a heavy equipment underground earthwork contractor.

PROFESSIONAL MEMBERSHIPS, CERTIFICATION & POSITIONS
Lean Construction Institute, Chapter Member 2005-07
Associated Builder's and Contractor's (ABC) Northwest Chapter Director 1998-2000
Associated Builder's and Contractor's (ABC) National Industrial Council Director 2000
State of Hawaii, "Competent Person" certification for General Contractor State Licensing
MATTHEW COHEN

EDUCATION
Harvard University Graduate School of Design, Master of Architecture 1994
Syracuse University, Master of Arts (Renaissance Art and Architecture) 1988
University of Vermont, Bachelor of Arts in Environmental Studies 1983

TEACHING EXPERIENCE
Assistant Professor, School of Architecture and Construction Management
Interdisciplinary Design Institute, Washington State University (WSU), Spokane 2003-Present
Italy Co-led seven-week study tour for twenty interdisciplinary WSU students 2006
Sessional Lecturer and August Workshop Director, School of Architecture,
University of British Columbia 2001-2003

PUBLICATIONS, GRANTS AND RESEARCH
- The Forgotten Proportions of the Brunelleschi Basilicas, book manuscript completed, publication peer review underway.
- Washington State University Foundation and Washington State University Office of Research, 2005 New Faculty Seed Grant, competitively awarded for the project: "Architectural Proportional Systems in Medieval and Renaissance Florence" ($20,000).
- Graham Foundation for Advanced Studies in the Arts, Research Grant, 2002 For continued research and manuscript preparation for the book The Forgotten Proportions of the Brunelleschi Basilicas, 2002 ($5,000).
- Graham Foundation for Advanced Studies in the Arts, Research Grant, 1991 For research on architectural proportion in the work of Brunelleschi, 1991 ($10,000).

CONFERENCE PAPERS

INVITED LECTURES
• Department of Architectural History, University of Venice (Dipartimento di Storia dell'Architettura, Istituto Universitario di Architettura di Venezia, IUAV), "A Late Medieval Proportional System in Brunelleschi's Basilica of San Lorenzo in Florence." Lecture to the doctoral program, School of Architecture and Urban Design, Venice, Italy, 21 June 2005.

HONORS AND AWARDS
Selected as "Outstanding Professor" by the students of the Interdisciplinary Design Institute 2003 Washington State University-Spokane.

SERVICE
• Board Member and Chair of Advocacy Committee, Spokane Preservation Advocates, Spokane, Washington 2003 - present
• National Endowment for the Arts, Invited Panel Member for the "Innovation 2006" Arts Grants, Washington, D.C. August 2005
• American Institute of Architects Washington Council, Civic Design Awards Invited Jury Member, Seattle, Washington, May 2005

PUBLIC SERVICE
Spokane Preservation Advocates, Board Member and Chair of Advocacy December 2004-Present

ADDITIONAL QUALIFICATIONS
Registration
Registered Architect in the State of Washington

Languages
Fluent Italian, working knowledge of French and Norwegian
J. PHILIP GRUEN

RESUME

EDUCATION:
Ph.D., Architecture, University of California at Berkeley 2004
M.A., History of Architecture and Art, University of Illinois at Chicago 1995
B.A., Art History/Criticism, University of California at San Diego (cum laude) 1992

TEACHING EXPERIENCE:
Assistant Professor, School of Architecture and Construction Management WSU 2004-present
Visiting Assistant Professor, School of Architecture and Construction Mgt WSU 2003-04
Visiting Assistant Professor, Dept of Architecture University of Oregon, Eugene Summer 2003
Lecturer, Dept of Architectural Studies California College of the Arts, San Francisco 2001-02

MANUSCRIPT:
"Manifest Destinations: Tourist Encounters in the Late-Nineteenth-Century Urban American West," under contract with the University of Oklahoma Press

PUBLICATIONS

PUBLICATIONS (Book reviews)
- "Mythes Metropolis: Die Stadt als Sujet fur Schriftsteller, Maler und Regisseur (The City as a Motif for Writers, Painters and Film Directors)," by Franziska Bollerey (Berlin: Gebr. Mann Verlag, 2006), The Art Book (forthcoming)


SELECTED CONFERENCE PAPERS:
• “Cultural Construction: Architecture, Tourism, and the Re-imagination of Los Angeles” Western History Association, Oklahoma City, Oklahoma, October 2007 (session organizer; forthcoming)
• “Modernism as Regeneration: Barcelona and Gaudí, Glasgow and Mackintosh” Urban History Association, Phoenix, Arizona, October 21, 2006
• “The Tourist as City Builder,” Vernacular Architecture Forum, New York, New York, June 17, 2006
• “Tourists, Skyscrapers, and Modernity in Late-Nineteenth-Century Chicago,” Society of Architectural Historians, (National Meeting), Savannah, Georgia, April 29, 2006
• “Winter Resorts? Urban Tourism in the Late-Nineteenth-Century American West,” Nineteenth-Century
• “Just Visiting? The Guidebook, the City, and the Urban Encounter,” Environmental Design Research Association, Vancouver, British Columbia, April 28, 2005

INVITED TALKS:
“Starchitecture Gazing: Tourism in the Twenty-First-Century American City,” Lecture Series, School of Architecture, Montana St. University, Bozeman, MT, Oct. 15, 2005

DEPARTMENTAL SERVICE:
Secretary, School Advisory Committee, 2006- present
Faculty Advisor, Architecture Honors Students, 2006- present
Faculty Leader, “Alive!” Orientation Sessions, Summer 2006 (two sessions)
Faculty Advisor, American Institute of Architecture Students (AIAS), 2005- present
Faculty Leader, Architecture Study Tours (Los Angeles, Chicago, Holland (2005-07)
Supervisor, Slide Library Digitization Project, 2004- present
Scholarship Committee, 2004-05

UNIVERSITY SERVICE:
Chair, Historic Preservation Committee, 2005- present
Reviewer, Regents Scholarship Program, 2006-07
Graduate Reader, Writing Center, 2005- present

COMMUNITY SERVICE
Member, Planning Commission, City of Pullman, Pullman, Washington, 2004-
Member, Landmarks Commission, City of Pullman, Pullman, Washington, 2004-

AWARDS & HONORS:
Outstanding Faculty Member of the Year Award, School of Architecture and Construction Management, Washington State University, 2003-04.
DAVID E. GUNDERSON, PH.D., CPC

RESUME

EDUCATION:
Ph.D., Education & Human Resource Studies, Colorado State University 2005
Master of Science Management, University of Alaska Anchorage 2002
Bachelor of Science, Construction Management, Colorado State University 1982

TEACHING EXPERIENCE:
Associate Professor, School of Architecture & Construction Management, WSU 2006-Present
Assistant Professor, Dept of Construction Management, Colorado State University, 2003--2004
Adjunct Faculty, Dept of Applied Technologies, University of Alaska Anchorage 2001-2002

TEACHING INVITATIONS:
Invited Guest Lecturer, Colorado State University, VE 7921 – Seminar in Quantitative Research Methods: Mixed Methods spring 2007
Invited Visiting Professor, University of Alaska Anchorage, School of Engineering. Course taught: PM 694A - Construction Project Management. Summer 2006
Invited Instructor, International Carpenters Training Center, Las Vegas, Nevada. Teaching courses associated with the Superintendent Career Training Program. 2006-present

JOURNAL ARTICLES:

PROCEEDINGS ARTICLES:

PUBLISHED BOOKS:
CERTIFICATION:
Postsecondary Teaching Certificate, Division of Continuing Education, Colorado State University, Fall 2005
Certified Professional Constructor (CPC), American Institute of Constructors, 4/8/2000

HONORS/AWARDS:
- Recipient of the 2005, Associated Schools of Construction National Teaching Award
- Nominated for a 2004 Community Civility Award, City of Fort Collins and Colorado State University
- Phi Kappa Phi, National Honor Society, elected by the chapter at University of Alaska Anchorage, April 2002

PROFESSIONAL PRACTICE:
- Project Manager, Alcon General, Inc., Anchorage, Alaska 1996-2002
- Project Superintendent, Denali General Contractors, Anchorage, Alaska 1993-1994
- Construction Management Consultant, The Bernheim Companies, San Francisco, California 1993
- Project Superintendent, Midstate Construction Corp., Sausalito, California 1988-1989
- Project Engineer, Morrison-Knudsen Company, Inc., Long Beach, California 1985-1987
- Resident Engineer, Morrison-Knudsen Company, Inc., Soldotna, Alaska
- Scheduling Engineer, Morrison-Knudsen Company, Inc., Anchorage, AK 1983-1985
- Construction Engineer, Morrison-Knudsen Company, Inc., Dallas, Texas 1982-1983
- Foreman, Carpenter, Concrete Finisher, Laborer, for Various companies, Worland, Wyoming 1972-1982
THOMAS L. HEUSTIS

RESUME

EDUCATION:
Master of Science, Construction Management, Calif. State Univ., Chico 1985
Master of Arts. Education, Calif. State Univ., Long Beach 1971
Bachelor of Science, Kinesiology, University of California, Los Angeles 1969

TEACHING EXPERIENCE:
Associate Professor, Construction Management, Wash. State Univ. 2005-present
Professor, Construction Management, Calif. State Univ., Chico 2003-2005
Assistant Professor, Construction Management, Calif. State Univ., Chico 1980-1985
Teacher, University High School, Irvine, CA 1970-1973

PROFESSIONAL EXPERIENCE:
Executive Director, Jon Wayne Construction, San Diego, CA 1996-2002
Director of Operations, Gafcon Construction Management, San Diego, CA 1989-1995
Project Manager, Olsen Construction Company, San Diego, CA 1985-1988
Owner, Thomas Heustis Construction, Paradise, CA 1975-1984
Partner, Construction Management Institute, Chico, CA 1980-1985
Responsible Managing Officer, Chico Housing Improvement Program 1978-1980
Principal, S.E.L.F. Alternative High School, Irvine, CA 1973-1975

LICENCES AND CERTIFICATIONS:
General Building Contractor, State of California
Building Inspector, County of Los Angeles
Expert Designations (for trial testimony):
- Standard of Care, Construction Management
- Cost of Construction
- Construction Delay and Disruption
Secondary School Administration Credential, State of California
School Teaching Credential, State of California
Construction Management Assessment Protocol, CSU Chico

SCHOLARLY WORK:
Developed,
Developed, Mold Remediation Protocol, Jon Wayne Construction
Developed, with Robert Randall P.E., Degree of Compliance Structural Assessment
Developed, Construction Estimating and Bidding Manual, CMI

Delivered
Presentation, "Construction Management and the Project", CMAA

SERVICE:
Planning Commissioner, Town of Paradise 1980-1984
Chair, Architectural Standards Commission, Town of Paradise 1982-1984
BASHIR A. KAZIMEE  AIA RESUME

EDUCATION:
Master of Architecture in Advanced Studies, Massachusetts Institute of Technology 1977
Bachelor of Architecture Kabul University Afghanistan 1973

TEACHING EXPERIENCE:
Professor & member of graduate faculty, SoACM, WSU 2003-present
Associate professor & member of graduate faculty, SoACM, WSU 1995-2003
Assistant professor of architecture, SoA, WSU 1990-1995
Assistant Professor, College of Architecture & Planning, King Faisal University, Dammam. Saudi Arabia 1984-1989
Lecturer, Division of Architecture, Texas Tech University, Lubbock, Texas, summer 1977
Researcher, Department of Architecture, Harvard University, Cambridge 1977-1980

Oстal leadership:

PUBLICATIONS (Total-46)
EDITORIAL
- Invited member of the International Editorial Board on the book series; The Sustainable World, in affiliation with Wessex institute of technology, and WIT Press, UK.
- Invited member; the Editorial Board; International Journal of Ecodynamics, in affiliation with the Wessex institute of technology and the WIT Press in UK.
- Invited member; Editorial and International Scientific Advisory Board on the series of international conferences on "Sustainability " in Segovia, Spain 2002 Skiathos , Greece 2003, Siena, Italy 2004, and Bologna, Italy 2005, offered by Wessex Institute of Technology

AWARDS
- **International Research Award: IAA/UN Gold Medal** International Competition "Ecopolises: Settlements for Sustainable Developments," International Academy of Architecture and UN, Habitat-II conference, Istanbul, Turkey. The **Gold Medal** was awarded for the project: "Sustainable Community Development: A Regenerative Proposal for Pullman, Washington, USA." (70 entries from 23 countries), (with Bartuska) 1996
- **National Research Award:** AIA/ACSA - Council of Architectural Research National Award, "Sustainable Community Development Project". Exhibited in AIA Convention, Los Angeles. 1998
- **Teaching Award:** Recipient of the Burlington Northern Teaching Award for Excellence and Meritorious Teaching at WSU. One of the highest awards granted by the university. (with Owen) 1993

**Scholarship:** Merit based scholarship by Kabul University, and US Agency for International Development granted for two years Graduate Study at MIT. 1975-1977

PROFESSIONAL EXPERIENCE
1989 **Architect.** The Harsen & Johns Architects, 151 West Passaic Street, Rochelle Park, NJ.
1973-1980 **Principal and Architect.** Merner Collaborative, Kabul, Afghanistan

PROFESSIONAL REGISTRATION / AFFILIATIONS
Licensed Architect, State of Texas, Reg. No. 14163
Member, American Institute of Architects (AIA)
Member, The Society of Afghan Engineers (SOAE)
KATHERINE KEANE

EDUCATION

Master of Architecture/Urban Design concentration, University of Wisconsin 1985
Bachelor of Science in Architectural Studies, University of Wisconsin, Milwaukee 1983
Diploma in Arch, Dublin Institute of Technology (DIT), Dublin, Ireland 1977
Ricardo Bofill Atelier de Arquitectura, Summer Institute, Paris and Barcelona 1984
Skilled Building/ Site Operative Certificate, Industrial Training Authority, Dublin, Ireland. 1977

TEACHING EXPERIENCE

Associate Professor, School of Architecture and Construction Mgt, WSU 200 I-present
Assistant Professor, School of Architecture and Construction Management, WSU 1995-2001

ACADEMIC ADMINISTRATION

Assistant Director, School of Architecture and Construction Management, WSU 2002-present

SELECTED PUBLICATIONS

Publications - in Books (International Collaboration)
- "Un Punto di Vista ....Diverso" (From Habitat I to Habitat II). Studi Urbanistici: Volume XXII La Conferenza Mondiale Habitat II, Giannini Editore, Napoli, 1998
- "The City of Peace and Science, the City of Oneness", Calaband Vol. #14, Small Press Distribution, January 1995

Publications - in Journals, Proceedings
- “Environmental Balance and Harmony: Design Studio Explorations in Environmental Literacy”. ACSA West Region Meeting Proceedings; Towards a Critical Pedagogy for the Environment, University of California, Berkeley, California, October 1998

HONORS/AWARDS
- WSU President’s Teaching Academy nominated and elected to membership 2007
- International Competition Fondazione Aldo Della Rocca, Rome, Italy. Publication/monograph was awarded First Place. 1997-98
- Outstanding Faculty Member Award from Sigma Tau, Chapter of Kappa Delta, Washington State University, Feb 1996
- First Place Award from Citta Carta Concorso Convegno an international competition of ideas, organized by Universita degli Studi Federico II, Naples, Consiglio Nazionale delle Ricerche.

GRANTS, FUNDING
- 2006 NSF -NEES Performance-Based Design of New Masonry Structures - Interdisciplinary, Multi Institute venture WSU, UCSD, NC A+T SU (WSU 3 year-$900,000)
- 2006 International Programs - foreign study program development grant
- Washington State Department of Fish and Wildlife Oiled Bird Treatment Center site investigations and feasibility testing. Fall 1998.
- Coastal Resources Science Center, Willapa Bay, Washington - Schematic design proposals for a Comprehensive Utilities Plan and Interpretive/ Information Center - collaborative interdisciplinary design studio Fall 97. $28,000

PROFESSIONAL REGISTRATION
Registered Architect, State of New York, since 1989. RIAI, Royal Institute of the Architects of Ireland.

ACTIVITIES

PROFESSIONAL
- Dzirochen Beara Retreat center, West Cork, Ireland: multi purpose space 2006-present
- The Small Space - home for a hermit, design studies, Gour west Cork 2006-present
- High-Density Residential Development design studies, Dublin, Ireland 2006-present
- Kylkhor, West Cork, Ireland, retreat center support facilities/community, 2005-present
- Pre Sabbatical Research Rural development study/research summer 2004.
- Henry Development Project West Cork, Ireland, residential development feasibility 2002
- The Fell Residence, Castletownbere Haven, West Cork, Ireland 1998-2000
- Farmhouse Restoration Castlebridge Co Wexford Ireland, feasibility studies Summer 1998.
GREGORY A. KESSLER, AIA, NCARB
Resume

EDUCATION:
Master of Architecture University of Southern California 1985
Bachelor of Architecture. University of Idaho 1977

TEACHING EXPERIENCE:
Professor, School of Architecture and Construction Management, WSU 2007- present
Associate Professor, School of Architecture and Construction Management, WSU 1994-2007
Assistant Professor, School of Architecture and Construction Management, WSU 1987-1994
Design studios at all levels; Architectural theory at undergraduate and graduate level;
Research methods and programming at the graduate level.

ACADEMIC ADMINISTRATION:
Director, School of Architecture and Construction Management, WSU 2001-present
Assistant Director, School of Architecture and Construction Management, WSU 1995-2001

RESEARCH AND SCHOLARSHIP:
- Research and scholarship has developed in ways that inform teaching. Work on the
Islamic Paradise Gardens, The Romantic Gardens of Ferdinand Bae, the Interpretation of
American Urban Form and current work Memories and Dreams of Architecture, stem
from the phenomenal qualities of architecture.
- “Towards an Interpretation of American Urban Form” Paper and design project on
American Cities and urban form presented at Bghth International Making Cities Livable
Conference, Siena, Italy. This paper and project depicted the urban development of four
American cities through representative drawings and diagrams. The second part of this
presentation was a design project for a fictional American city (Paradise USA) of 30,000.
- “Revealing the Myth of Paradise” Paper presented and published at Myth, History, Writing
and Architecture Conference, University of Auckland, Auckland New Zealand. This paper
focused on the urban development of the Islamic Paradise Gardens and their
relationship to landscape, environment and culture, 1993.
- Another Side of Environmentalism” Paper and poster presentation at 26th annual
Environmental and Design Research Association Conference, Boston MA This work was
the initial research and presentation of the gardens of Ferdinand Bae, 1994.
- Faculty Summer Stipend: Washington State University. This competitive seed grant was
awarded to new WSU faculty to begin research. 1989
- WSU Arts and Humanities Travel Grant: To Support travel to East Coast Cities as part of
research on American Urbanism. 1988
- College of Engineering and Architecture, Seed Grant for Travel and summer salary in
- Awarded Sabbatical Leave: Washington State University for travel and research into the
gardens of Ferdinand Bae. During this time I documented through drawings, sketches
and photographs the Garden of Les Colombieres in Menton, Fronce.
- School of Architecture Mini Grant for travel to Southern France in conjunction with

AWARDS
- 2005 National AIA Housing Award 2004: one of eight awards given in the US for innovative
housing design for The Canyon House, Lewiston Idaho. Served as design consultant in
schematic design and responsible for design development, 2004.
- AIA Seattle Honor Award 2004: one of three awards given for outstanding building design
for The Canyon house (150 entries).
- **Outstanding Architecture Faculty Award**: School of Architecture and CM spring 2002.
- **Outstanding Architecture Faculty Award**: School of Architecture and CM spring 1993.

**INVITED LECTURER, CRITIC, PANEL PARTICIPANT, EXHIBITS, CITATIONS**
- Invited participant: AIA Sustainability and Education Conference. One of thirty five invited participants to discuss national strategies for integrating issues of sustainability in architectural curriculums. February 2007 Pomona, CA
- Presentation ACSA Administrator's Conference Phoenix, Arizona November 2006: Topic: Integrated Education at the School of Architecture and CM, WSU.
- Invited Juror: Seattle Chapter AIA National Case Study Competition. AIA Western Regional Conference, Seattle, Washington July 2005
- Invited lecturer: Royal Danish Academy of Fine Arts, Department of Architecture. Title: *"The Romantic Landscapes of Ferdinand Boe"*, Copenhagen, Denmark, Spring 1997.
- Guest Critic: Danish International Study Program, Copenhagen, 1997, 2004. Critic for fourth year architecture studio projects for students from various schools in the US.
- Seattle Times: Front page article on Teaching through Interactive telecommunications system", November 1997.
- New York Times: Cited in article on integration of architecture and construction, July '03.
W. MAXKIRK

EDUCATION:
PhD. in Administration, Curriculum and Instruction University of Nebraska - Lincoln May 2000
Master of Science in Technology (Construction) Arizona State University May 1990
Bachelor of Arts in Education Eastern Washington University June 1985
Bachelor of Science in Building Theory & Practice (Cst M) Washington State University 1977

TEACHING EXPERIENCE:
Associate Professor School of Architecture and Construction Management Washington State University, Pullman, Washington august 2001-present
Associate Professor, Dept of Construction Mgt., University of Nebraska-Lincoln 1996-2001
Assistant Professor, Dept of Construction Mgt., University of Nebraska-Lincoln 1991-1996

ADMINISTRATIVE EXPERIENCE
Assistant Director Construction Management School of Architecture and Construction Management Washington State University - Pullman Washington 2005 - present
Coordinator of Construction Management School of Architecture and Construction Management Washington State University- Pullman Washington 2001-2005
Department Chair Department of Construction Management University of Nebraska - Lincoln, 2000-2001

ACADEMIC SERVICE
UNIVERSITY
Elected to Faculty Senate Washington State University 2003-present
Elected to the Committee on Committee on Committee fall 2003-spring 2005
Elected Chair of Committee on Committee for academic year 2005
Appointed to the Academic Affairs Committee fall 2005-present
Appoint vice chair of Academic Affairs academic year 2006

COLLEGE
Appointed to the College of Engineering and Architecture Assessment Committee fall 2005-present
Appointed to the Deans search Committee for the College of Engineering and Architecture fall 2005 and fall 2006

SCHOOL
Member of School Advisory Committee (SAC) for the School of Architecture and Construction Management. Fall 2001-present
Faculty advisor for the WSU Associated Students of Construction Management (ASCM) student organization Fall 2001-2004
Coach (Heavy/civil Division) Reno for WSU's student competition team at the Associated Schools of Construction (ASC) regional competition. Spring 2002-present
Coordinator of WSU's ASC student competition spring 2005
Chair of CM Search Committees (5) 2005-present
AWARDS and HONORS
Outstanding Teaching Faculty Member Construction Management College of Engineering and Architecture Academic years 2002-2005

College Award for Distinguished Teaching-College of Engineering and Technology University of Nebraska - Lincoln Academic Year 1997

Parent Association of the University of Nebraska Recognition Award for Through 2001 contributions to students., academic years 1998 through 2001

INVENTIONS and PATENTS
Awarded patent No. 6,213,117 for a motorized, insulated damper assembly for furnace systems. Awarded 2001 and signed over to WSU Fall 2006.
TAIJI MIYASAKA

EDUCATION

Master of Science in Advanced Architecture Design, Columbia University  1992
Master of Architecture, University of Michigan  1991
Bachelor of Engineering in Architecture, Kyoto University, Kyoto, Japan  1989

TEACHING EXPERIENCE

Assistant Professor of Architecture, Washington State University  2002-present

PUBLICATIONS

Refereed Papers, International

Refereed Papers, National

Articles
- "The Housing Problem and Diversity," an article reviewing the "un-private house" exhibit at MoMA, in Kenchiku Bunka, December 1999.
- "Interview with Julius Shulman," in Kenchiku Bunka, September 1999.

My design for a Humanities Institute was published in volume 5 of Dimensions, the Journal of the College of Architecture and Urban Planning, University of Michigan, Spring 1991.

PROFESSIONAL EXPERIENCE
- Taiji Miyasaka Design, Pullman, WA 2002-present
- Rem Koolhaas / Office for Metropolitan Architecture, Rotterdam, The Netherlands 2000-2001
- Reiser+ Umemoto, New York, NY 1993-1995
- Skidmore, Owings & Merrill, New York, NY 1992-1994
Professional Service

Creative Work
- The Oojo, New York, NY (with Brian E. Boyle. AIA): Designing a facade, lobby, dojo and teahouse for a high-end health club. 2004-present.

AWARDS
- Outstanding Teaching Faculty Award, School of Architecture. WSU March 2005.

EXHIBITIONS
- Exhibit of selected entries in the Sun Shelter Competition / Van Alen Institute (with John Kelleher and Michael Young), Fall 1997.

CONFERENCES CONVENED

GRANTS
- William Zuk Fellowship to deliver a paper at the Society of Architectural Historians' 59th Annual Meeting in Savannah, April 2006, $250
- Asian American Pacific Islander Faculty and Staff Association Enhancement-Grants. Washington State University. Proposal funded for research on rubber materials and their possible use as architectural design components, February 2003, $400

INVITED LECTURES
- Invited Critic, The University of Texas Tech, Second and Third Year Studios, and Master of Architecture review, April 2007.
- Invited Critic, The University of Hong Kong, Master of Architecture review, April 2007.
- Invited Critic, Ohio State University, Second Year Studio, June 2003.
- Guest Lecturer, Kobe Design University, August 2001.
- Invited Critic, Final Reviews, Graduate Studio, Cornell University, Fall 1997.
- Invited Critic, Yale University Graduate Studio, Fall 1993.

COMPETITION ENTRIES
- Frontierspace: Open Design Competition for Vancouver (with M. Dale and M. Kirk), 2005
ANNA WEGIERSKA MUTIN

EDUCATION
Master of Architecture, Politechnika Warszawska, Warsaw Poland

TEACHING EXPERIENCE
Professor of Architecture, Washington State University 2001-present
Associate Professor of Architecture, Washington State University 1995 - 2001
Assistant Professor of Architecture, Washington State University 1991 - 1994

Academic and Professional

PUBLICATIONS
- Manuscript "The Wooden Grain Towers In Western Canadian Prairie And Town" in review
- "Ije Po WTC" Magazyn Budowlany Architektura, Projektowanie, Realizacje.
- "Symbolic Anchoring. The Wall of Beauty and Color that was: The Wooden grain Towers of the Western Canadian Prairie." Borderlands Contested Terrain 2001 West Region ACSA
- "Icon, Imagery and Local Art: The Wooden Grain Tower of the Western Canadian Provinces: Vitalizing Force in the Structure, Life and Art of the Prairie Community" ACSA Southwest 2001
- "The Union of Town Plan, Building Form, Color and Landscape". IASTE International Conference. Cairo, Egypt. Traditional Dwellings and Settlement Review 1998
- Hotel on Khor Dubai. CONTROSPAZIO Architettura Urbanistica. 11998. Roma, Italy.
- Puerto Rico Bridge. CONTROSPAZIO Architettura Urbanistica 11998. Roma, Italy.
- Nanjing International Centre. CONTROSPAZIO Architettura Urbanistica,. Roma, Italy.
- "The Imagery of Change" ACSA Western Region Conference
- "Nanjing International Center, Nanjing China". Pacific Rim Portfolio.1995 Architectural Record
- "Miedzynarodowe Centrum Nanjing," Architektura & Biznes, Krakow Poland.
- "Dubai Hippodrome," CONTROSPAZIO Architettura Urbanistica
- "Pustynny Kwiat," Dubai Hippodrome, Architektura & Biznes, Krakow, Poland,
- "Dubai Hippodrome for Thoroughbred Racing," Proceeding , ACSA National Convention,
- "The Tall Building, Romantic Imagery, Transformation of Form and Related Issues SAH

PROFESSIONAL EXPERIENCE
- Fredenburgh Wegierska-Mutin, Architects, New York: Co-Partner 1990-Present
- M. Pei & Partners, Architects and Planners, New York: Senior Associate 1977-1990
- Architectural Offices in US, France and Italy

ARCHITECTURAL PROJECTS - FREDENBURGH WEGIERSKA-MUTIN ARCHITECTS 1990-present
- Three Design proposals for a Villa in Shanghai, China.
- Villa of the Gentle Briezes. Jia Xin Golf and Forest Villas. Shanghai China
- Baotuo Fountain Place. Jinan China. 300,000 sq.ft. serving CITIC bank, office and hotel.
- A Centre for 21st Century Arts in Rome International Competition.
- School for Boys. Qatar Foundation. Qatar. School for 500 boys
Commercial and Residential Complex in Al Sharq. Kuwait, Kuwait.
In Town Villa. Kuwait, Kuwait
Puerto Rico International Bridge Design Competition, 1st Prize/1stphase, 3rd Prize/2nd phase.
Korean American Museum of Art and Cultural Center International Competition
Nanjing International Centre, Nanjing, China. 88 Story Tower, 1,860,000 m2 mixed use dev
International Competition for Reconstruction of the Souks of Beirut, Beirut Lebanon.
Safa Crescent Centre, Dubai U.A.E., 340 Room Hotel, Theater Complex, Retail and Office
Spreeinsel International Competition for Urban Design Ideas, Berlin, Germany.
Dubai Hippodrome for Thoroughbred Racing, Dubai, United Arab Emirates. Winning competition design for 1250 seat stadium, club house, and related site development.
Law Offices, New York, New York. Programming, design and furnishings of a law firm
Commercial and Residential Complex Maasharat Al Bahama, Dubai, UAE
Villa Complex, Dubai, UAE. Residential/ sports villas 80,000 sqft on 30 acre waterfront site.
Master Plan and Headquarters Office Complex for Abu Dhabi Company for Onshore Oil Operations, Abu Dhabi, United Arab Emirates. Opera Hotel - Warsaw Poland.

I. M. PEI & PARTNERS, ARCHITECTS AND PLANNERS - NEW YORK Senior Associate
IBM/First Bank Place - Minneapolis, Minnesota.
The Bacardi Building, Coral Gables, Florida.
Library Tower/First Interstate World Center - Los Angeles, California
Le Grand Louvre - Paris, France.
IDC/NY Master plan and development concept for Long Island City, New York.
Rowes Wharf - Boston, Massachusetts.
Centrust Tower (Miami World Trade Center) - Miami, Florida.
Texas Commerce Center - Houston, Texas
Al Salaam Center- Kuwait, Kuwait
Hilton Area Apartments - Kuwait, Kuwait

AWARDS
Dubai Hippodrome for Thoroughbred Racing, Dubai, UAE First Prize
"Dubai Hippodrome for Thoroughbred Racing"ACSA National Cont. Presentation 1993
Awards and Honorable Mentions, Photography Competitions, AIA
Award of Excellence. Texas Commerce Center, Houston Texas Federal Award

SPECIAL RECOGNITION RELATED TO TEACHING
Distinguished Professor Award. Outstanding Faculty Mortar Board Senior Honor Society
Outstanding Faculty Award, School of Architecture, WSU
Outstanding Faculty Award American Institute of Architecture Students, WSU

PROFESSIONAL QUALIFICATIONS AND AFFILIATIONS
Registered Architect, State of New York 1974 - Present
National Council of Architectural Registration Boards NCARB Certificate 1980
American Institute of Architects, New York Chapter 1978- 1995
EDUCATION
Master of Business Administration, Wayne State College, December 2004
BS Construction Management, University of Nebraska-Lincoln, May 1997

TEACHING EXPERIENCE
Visiting Assistant Professor School of Architecture & Construction Management, Washington State University, Pullman, Washington, August 2006-present
Adjunct Professor Technology & Applied Sciences Department, Wayne State College, Wayne, Nebraska, Jan. 2004-Aug 2006

PROFESSIONAL DEVELOPMENT & ACTIVITIES (EDUCATION)
• Integrated Education Committee, Washington State University, School of Architecture & Construction Management, Pullman, Washington. Fall 2006 - present
• Coach for Associated Schools of Construction, Regions VI & VII Student Competition - Residential Construction Team (Reno, Nevada), Washington State University, School of Architecture & Construction Management, Pullman, Washington. Fall 2006 to spring 2007.
• Collaboration with Autodesk, Inc. - Building Solutions Division (Rahgi Iyengar - Construction Product Manager, Paul Blandini - Development Project Manager & Andrew Wood - Product Designer) on the creation of a new Estimating software that is compatible with existing and future BIM software as well as AutoCAD and Adobe for document importing, Washington State University, School of Architecture & Construction Management, Pullman, Washington. Fall 2006 - present
• Team Leader for 2007 Integrated Education Symposium Problem (team members include Dr. W. Max Kirk & Taiji Miyasaka), Washington State University, School of Architecture & Construction Management, Pullman, Washington. Fall 2006 - spring 2007
• Associated General Contractors - Inland Northwest, Education Committee Member, Spokane, Washington. Fall 2006 - present
• Associated General Contractors - Northwest, Education Foundation Board Member, Seattle, Washington. Fall 2006 - present

MENTORING, PRESENTATIONS & GUEST LECTURES
• Guest Lecturer for Conceptual Estimating (ARCH 495) class, Washington State University, Pullman, Washington. Spring 2007
• Co-Presenter with Dr. David Gunderson and Rick Chert at Associated Schools of Construction, Regions VI & VII Student Competition; Reno, Nevada. Topic: Integrated Education at Washington State University. February 2007
VITAE, JASON B. PESCHEL, page 2


- Attended and completed a one-day National Effective Teachers Institute (ASEE); Washington State University, Pullman, Washington. July 2007

CONSTRUCTION EXPERIENCE
Vice President & Chief Estimator/Project Manager Otte Construction, Inc., Wayne, Nebraska
Obtaining low bid results for residential and commercial projects of varied scopes ranging in size from $500 to $3.7 million via compiling estimates by hand or with Timberline software. Working in a team environment to manage projects obtained via different delivery methods including hard bid, negotiated, Design-build or CM (at-risk) projects while maintaining budget and schedule. Performing varied duties as an instrumental team member in growing the company's annual volume from $750,000 (1997) to $7.5 million (2006). May 1997 – July 2006

PROFESSIONAL DEVELOPMENT & ACTIVITIES (INDUSTRY)
- Attended and completed a three-day Project Manager Course sponsored by AGC/Master Builders of Iowa Construction Project Managers Course, Des Moines, Iowa. October 2000

- Attended and completed a six-day Project Manager Course sponsored by national AGC, Dallas, Texas. February 2003

- Attended and completed an 8-hour course sponsored by the US Department of Housing and Urban Development addressing Lead-based paint hazards during renovation, remodeling and rehabilitation in federally owner and assisted housing. HUD 3R Course - Lead Safe Work Practices, Wayne, Nebraska. October 2003

- Advisory board member, Wayne State College, Technology & Applied Sciences Department, 2006
AYAD RAHMANI, REGISTERED ARCHITECT

EDUCATION:
Master of Architecture in Building Design, Washington University in St. Louis 1988
Bachelor of Science in Architecture, Ohio State University 1985

TEACHING EXPERIENCE:
Assistant – Associate Professor of Architecture, SoACM, WSU 1996 - present
Arch 201&203: Second Year Design, Arch 207&209: Second Year Theory,
Arch 403: Fourth Year Design, Arch 542: Architectural Criticism, Masters Studio: Arch 511
Visiting Professor, School of Architecture, Catholic University of America 1988--1989

PUBLICATIONS
Books:
- *Kafka and Architecture*, in process and due to be finished in 2008
- *Place, Meaning and Form in the Architecture and Urban Structure of Eastern Islamic Cities* 2003

Selected Presentations And Publications:
- "Rooms and the question of return in Kafka's work", *The Built Environment*, Volume 31, No.1, 2005
- "Library as Carnival," Geography, Identity, Space, International ACSA Annual Conference, Istanbul, Turkey, June 2001
- "Library as Carnival," *ARCADE*, a journal of architecture in the northwest, winter 2000, vol.19.2
- "Urban Schools," *The Inlander*, a Spokane weekly paper, August 18th–24th, 1999

PROFESSIONAL REGISTRATION:
Registered Architect, State of Pennsylvania

EMPLOYMENT HISTORY - PRACTICE
Project Designer, ALSC Architects, Spokane, WA 1993-1995
Project Designer, Hayes large Architects, Altoona, PA 1990-1993
Assistant Architect, Morris Architects, Baltimore, MD 1988-1989

KEVIN M. REEVES

EDUCATION:
Master of Architecture, Washington State University 2006
Bachelor of Science in Architectural Studies, Washington State University 2005

TEACHING EXPERIENCE:
Instructor, School of Architecture & Construction Management, WSU 2007-present
Teaching Assistant, School of Architecture & Construction Management, WSU 2003-2006
Courses include:
• Arch I03-Visual Design
• Arch 101-Graphic Communication Spring 2006
• Arch 202-Built Environment Spring 2003, Spring 2005
• Arch 220-Architectural History I Fall 2003, Fall 2004
• Arch 351-Structures I Summer 2004
• Arch 352-Structures II Summer 2004

RESEARCH/PUBLICATION:
• Washington State University "2007 Academic Showcase" Submitted Abstract chosen for Presentation 23 March 2007

HONORS/AWARDS:
• AIA School Certificate of Merit, Washington State University, Master of Architecture, 3.94 GPA, 2006
• Selected as the Outstanding Teaching Assistant, Architecture & Construction Management, 2006
• Magna Cum Laude, BS in Architectural Studies, 3.86 GPA, 2005
• Selected as the Outstanding Junior Student, Architecture, 2003-2004
• Selected as the Outstanding Sophomore Student, Architecture, 2002-2003
• Received "Pass with Distinction" on Washington State University, Writing Portfolio; signifies passing of Junior writing assessment in top 103 of University, 2003
• Washington State University President's Honor Roll, 2001-2006

PROFESSIONAL EXPERIENCE:
• Paul Hirzel, Architect, Pullman, WA Feb-Mar 2007
• RMC Architects, Bellingham, WA, Summer Intern Architect 2005-2006
• Stewart+King Architects, Bellingham, WA, Summer Intern Architect 2004
C
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EDUCATION:
BS. EE, Texas A&M University, College Station, Texas
Cooperative Education Certificate - Jet Propulsion Lab, Pasadena, California
MS. CE, University of Colorado, Boulder, Colorado
M. ARCH, University of Oregon, Eugene, Oregon

TEACHING EXPERIENCE:
Assistant Professor, Washington State University
  ARCH 432/433, Environmental Controls in Buildings
  ARCH 493, Sustainability and the Built Environment (seminar)
  ARCH 490, Daylighting Special Topics
  ARCH 437, Alternative Building
Adjunct professor, Washington State University,
  ARCH 432/433, Environmental Controls in Buildings
Graduate Instructor, University of Oregon
  ARCH 450 - Spatial Composition
  ARCH 461 - Structural Behavior
  ARCH 462 - Wood and Steel Building Design
  ARCH 463 - Reinforced Concrete Design
  ARCH 491/492 - Environmental Controls
Graduate Instructor, University of Colorado, AREN 4010, HVAC Engineering
Graduate Assistant, University of Colorado,
  AREN 2010, Principles of Solar Engn'g
  AREN 3030, Structural Analysis
Graduate Instructor, Texas A&M University, ENGR 109, Engineering Methods

PUBLICATIONS AND RESEARCH:
- Building Technology Education Symposium, 2006, University of Maryland, MD, "Design/build lessons learned", Accepted paper and presentation
- Making Cities Livable Conference, Siena, Italy – presentation and paper, "Failing to Learn from Siena: Downtown, People and Cars"
- Solar 2000 -American Solar Energy Society Conference, Madison, Wisconsin - presentation and paper, "Rethinking the Tirehouse"
- Solar Decathlon - Research
  - Design build project involving designing, building and delivering a I003 solar powered home to the national mall within three years
  - Project involved well over 30 students within five disciplines
  - Project cost estimated at $60,000-project worth at $240,000
SERVICE
• General Use Classroom Committee
• School Advisory Committee (past member)
• Advisor - Solar Decathlon
• Advisor - Engineers Without Borders
• Advisor - Builders Without Borders
• Advisor – Emerging Green Builders (forming)

HONORS AND AWARDS
Teacher of the year, 2005, School of Architecture and Construction Management

PROFESSIONAL
• William and Christine Taylor residence
  • set for completion in June, 2007
  • 753 completion to-date
  • 503 solar heat and 503 solar electric
  • progressive systems - air/air heat exchange, ground-source heat pump, radiant floors, solar hot water

• Sunesis Design, a private consulting business
  • solar design assistance
  • solar hot water and photovoltaic system design and installation
  • energy design and efficiency consulting

• Callahan Residence, Boulder, Colorado
  • Solar design assistance, photovoltaics and hot water
  • 1900 square feet - 1003 energy independent

PROFESSIONAL AFFILIATIONS
ASES – American Solar Energy Society
BTES- Building Technology Educators Society

ASHRAE – American Society of Heating, Refrigerating and Air Conditioning Engineers
SBSE - Society of Building Science Educators
DAVID WANG  Ph.D.  

EDUCATION:  
Doctor of Philosophy in Architecture, University of Michigan  
MS Arch, University of Michigan  
M.Arch., University of Pennsylvania  
BA, Design of the Environment, University of Pennsylvania  

TEACHING EXPERIENCE:  
Professor of Architecture, WSU Spokane, 2006 - current  
Associate Professor of Architecture, WSU Spokane, 1997-2006  
Lecturer in Design Fundamentals, University of Michigan, 1996  
Assistant Professor of Interior Design, Centenary College (New Jersey), 1993-1994  
Adjunct Assistant Professor of Architecture, Philadelphia University IPA, 1992-1993  
Assistant Professor of Architecture, Spring Garden College (PA, 1988-1992)  

SELECTED PUBLICATIONS:  
Books (by chronological order of first publication)  
Sounding Spokane: Perspectives on the Built Environment of a Regional City at the Turn of the Century. (Editor). Eastern Washington University Press, 2003  
Chinese translation issued of Architectural Research Methods China Machine Press, Beijing, Ch  
Journal Editorial Boards or Reviewer  
Journal of Architectural Education, Editorial Board Member, 2003-2006)  
Journal of Interior Design, Reviewer (current)  
Sri Lankan Institute of Architects Journal, Reviewer (current)  
Publications -- Book Chapters or Refereed Articles (most recent)  
A Map of Phenomenology for the Design Disciplines (with S. Wagner), Environmental and Architectural Phenomenology, Fall, 2007 in press  
Book Review: Remaking Beijing: Tiananmen Square and the Creation of a Political Space (by Wu Hung, University of Chicago Press, 2005),Journal of Architectural Education, 06  
Washington State Magazine, Spring, 2006  
A Form of Affection: Sense of Place and Social Structure in the Chinese Courtyard House.  
http://washington-state-maqzine.wsu.edu/stories/2006/May/Wanq.html  
Cezanne's Doubt: Thoughts on the Production of Art and the Phenomenological Core Environmental and Architectural Phenomenology, vi I5, no. I,10-15, 2004  


Book Review: Words and Buildings (by Adrian Forty, Thames and Hudson Publishers, 2000)

Journal of Architectural Education

Intentionality and the Production of Architectural Design: An Application of Section 37 of Husserl's Ideas. (with J. Keen) Environmental and Architectural Phenomenology, vi. 12, no. 3, 2001

Invited Lectures or Teaching - Internal

Oslo Academy of Architecture (Norway). Once-week residency: 5 lectures on research methods to PhD students, March, 2007

Oslo Academy of Architecture (Norway). Invited lead opponent for PhD Committee of Ivar Holm, 2006

Kunming University of Science and Technology (China) One-week residency: 4 lectures to undergraduate architecture students, 2004

Shang-Luo Teacher's College, Shangluo City, Shaanxi Province, China, 2004

Oslo Academy of Architecture (Norway). One-week residency: 8 lectures to PhD students, 04

Three Chinese Universities (Shenzhen, Tianjing, Xi'an Jiaotong): "Design in Relation to Research in Architecture," 2002

Invited Lectures or Panels -- National


Invited Speaker at IDEC (Interior Design Educators Council) Meeting, Austin, Texas. JID Writers' Workshop, March, 2007


Invited Facilitator of Workshop on Architectural Research

Interior Design Educators' Council (IDEC), JID Writers Workshop, Savannah, Georgia 2005

TEACHING AWARDS

* Outstanding Researcher Award, WSU School of Architecture and Construction Management, 2005-2006
* Certificate of Excellence for Teaching, Associated Students of WSU Spokane (ASWSU) 04-05
* Certificate of Excellence for Teaching, Associated Students of WSU Spokane (ASWSU), 03-04
* Faculty Excellence Award for outstanding teaching, research and community service, Washington Statue University Spokane, 2001

PROFESSIONAL REGISTRATION

Member, American Institute of Architects (AIA), 2000-2004

Registered Architect in Pennsylvania since 1983.

Registered Architect in Michigan since 1996.
EDUCATION
M. Arch, University Of Washington, College Of Architecture and Urban Planning, 1978
B. Arch, CA Polytechnic State University College of Arch and Environmental Design, 1968

MILITARY SERVICE
United States Army, Corps of Engineers, Lieutenant. Architect
- Construction Battalion: Fort Lewis, Washington, 1970
- West Pacific Command Engineers: Okinawa, 1971

UNIVERSITY TEACHING POSITIONS
- CA State Polytechnic University, College Of Architecture and Environmental Design, 1969-70, 1993: Design, Drawing
- 2007-2008: UW Extension: Design Firm Leadership and Management for Mid-Career Professionals

PUBLICATIONS
- Magazines: Projects and articles
  - Alaska Airlines Magazine, Architectural Record, Asahi Shimbun, Better Homes and Gardens, Home,
  - Journal of the 2x4 Building Association of Japan: Bimonthly article on American Housing issues and designs, Author and Photographer
- Books
  - Innovative Fence Designs: From Small Diameter Timber: Adding Value Through Design 2006, Illustrator; University of Washington Center for International Trade of Forest Products
  - Seattle Architecture: A Walking Tour Of Downtown: 2007, Photo Editor and Contributing Photographer; The Seattle Architectural Foundation

PROFESSIONAL POSITIONS
Roger Williams Architecture Design Photography, Principal 2004-Present
Mithun Architects + Designers+ Planners, Principal 1990-2004
Roger Williams Architects, Principal 1984-1990
Wyatt Stopper Architects, Design Director, Senior Associate 1982-1984
Mithun Partners, Director Of Interior Architecture 1980-1982
Hewitt Daly Architects, Associate 1976-1980
PROFESSIONAL AFFILIATIONS & ACTIVITIES (PARTIAL)
Registration: Architect, State of Washington  1975
Certification: National Council of Architectural Registration Boards
Accreditation: Leading Energy and Environmental Design (Leed) Professional
American Institute of Architects
FAIA. College of Fellows - Elected, 1996
President, Fellows and Honors Council, Seattle 2002-2004
Chair National AIA Nominating Committee, 2001
Chair, Honorary FAIA Jury (Foreign Architects), 2001
Chair, National AIA International Committee PIA, 1999
Chair, Northwest & Pacific Regional Conference, Seattle and Fukuoka, Japan 1994
President, AIA Seattle, 1987-1988
National AIA Kobe Earthquake Response Team, March 1995
Japan Institute Of Architects (JIA), Member Since 1995
Japan America Society, Washington State, Chairman, 2000, Board of Directors, 1994-2005
International Union Of Architects (UIA), Delegate, Triennial Congress, Beijing, China, 1999
Washington State University School of Architecture, Professional Advisory Board 1998-2005
Economic Development Council of Seattle - King County, Board of Directors, 2002-2005
Seattle Architectural Foundation, Board of Trustees (Emeritus)

SPEAKING (PARTIAL)
- Design And Sustainability, Sustainable Wood Products, International Practice, Cross-Cultural Design, Wood Systems, Design With Wood Products
- AIA International Conferences - Seattle, Santiago, Honolulu, London, Copenhagen, Beijing, Shanghai
- Japan Institute Of Architects- National Conference, Kitakyushu
- UNIVERSITY SPEAKING: California Polytechnic University, Chiba University (Japan), Georgia Institute of Technology, Jiao Tong University (China), Kobe University (Japan), University of Arizona, University of Hawaii, University of Washington, WSU
- American Forest And Paper Association -
  - Washington DC, Tokyo, Beijing, Guangzhou, Shenzhen, Chengdu, Guadalajara, Tijuana, Mexico City, Cancun, Merida, New Delhi
- United States Department Of Commerce - Osaka, Sapporo, Beijing, Shanghai.
- Hyogo Prefecture Government Housing Development Office - Kobe
- Japanese Ministry Of Construction -Tokyo, Saitama, Chiba
- Softwood Export Council- Tokyo, Yokohama, Chiba, Saitama, Hiroshima, Nagoya, Osaka, Shanghai, Guangzhou
- American Plywood Assoc/Engineered Wood Systems-Shanghai, Beijing, Taipei, Seoul,
- Washington State Department Of Trade And Community Development- Seattle, Shanghai, Kobe, Stockholm

NATIONAL DESIGN AWARDS
Assoc General Contractors Regional Office of the Year: Puget Sound Energy HQ 2004
NAIOP National Office Development of the Year: Smith Tower Restoration/Adaptation 2000
Council Environmental Architectural Award: Seattle Light Lighting Design Lab 1999, 2004
Gold Nugget National Award, 1st Place, Residential Project: Attached: Harvard Condos 1999
Ford Foundation/ Harvard Kennedy School Innovation Award: WA Village, Japan 1996
NAIOP National Office Development, Honor Award: Union Bay Sportswear 1989
Sunset/AIA , Western Home Awards, Williams Res, Benchmark Res 1985, 87
REPRESENTATIVE PROJECTS
156 Single-Family Custom Homes 1970-2007
   Seattle Region, Suncadia, San Juan Islands, Methow Valley, Hood Canal, Ellensburg, WA,
   San Luis Obispo, San Diego, CA,
   Kobe, Nishinomiya, Ashiya, JAPAN
   Seoul, KOREA

Union Bay Sportswear, Corporate Headquarters. 1987, 2007 Kent and Seattle, WA
Nikkei Concerns: Senior housing strategic planning and projects. 2007 Seattle, WA
Asumigaoka Sustainable Residential Community. (35 units) 2004-6 Toke, JAPAN
Puget Sound Energy Corporate Headquarters. Executive floors. 2004 Bellevue, WA
Seattle City Light: Lighting Design Laboratory. 1989, 2004 Seattle, WA
Yessler Terrace Community Center, 2004 Seattle, WA
The Smith Tower Historic Renovation & Addition (42 floors), 2001-2 Seattle, WA
Lightolier Lighting Laboratory / Regional Offices 1994, 2004 Los Angeles, San Francisco, CA
University Place City Hall. 1997 University Place, WA
Eddie Bauer Retail Facilities (4). 1995 Tokyo, JAPAN
Kobe Earthquake Housing Replacement. 1996 Kobe, JAPAN
Miller Community Center. 1994 Seattle, WA
Oregon Tile and Marble Showroom / Distribution center. 1993 Seattle, WA
University of Washington Interim Branch Campus Facilities. 1991 Tacoma and Bothell, WA
The Harvard Condominiums. 1990 Seattle, WA
Tsukuba Planned Unit Development. (15 units) 1990 Tsukuba, JAPAN

Tokyu Home Corporation Prototype Designs. 1988-2007 Kobe, Yokohama, Tokyo, JAPAN
Pacific Aviation Corporate Headquarters. 1989 Federal Way, WA
GESCAN Lighting Lab/Showroom. 1988 Vancouver, BC
Raleigh Cycle Company, Corporate Headquarters & Assembly Facility. 1988 Kent, WA

PHOTOGRAPHY
National AIA Architectural Photography Competition: First Prize (twice), Third Prize, Honorable (twice)
Hyogo Prefecture Photo Competition, Seattle: First Prize
Gallery Shows: Seattle: Windows, Seattle Architectural Gallery, Mithun Gallery, Artimide Gallery
National AIA Architectural Calendar: Published 16 times
Kobe-Seattle Sister-City 50th Anniversary, Commemorative Photo Exhibit, Kobe Japan
Amber Restaurant, Seattle: Permanent Exhibition

Private Collections: 24
4.5 Visiting Team Report from previous Visit
Visiting Team Report

Bachelor of Architecture (5 Years)
The National Architectural Accrediting Board (NAAB), established in 1940, is the sole agency authorized to accredit U.S. professional degree programs in architecture. Because most state registration boards in the United States require any applicant for licensure to have graduated from an NAAB-accredited program, obtaining such a degree is an essential aspect of preparing for the professional practice of architecture.
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I. Summary of Team Findings

1. Team Comments

The team finds the architecture program, under Director Kessler's leadership, to be a collegial environment for students, faculty, alumni, and staff. The school's community, along with the university's upper administration, expressed strong feelings of support for the director's leadership along with an expression of his ability to also relate to the interests of the individual. The relationship between the school and the Dean of the College of Engineering and Architecture, Anjan Bose, is positive and has contributed to the success of the program. Director Kessler's ability to clearly communicate is echoed by the staff and faculty on multiple levels. He has created a democratic and inclusive form of leadership in the development of an elected faculty and student advisory board, and has creatively found ways to propel the School of Architecture and Construction.

The curriculum has several unique SOACM components. The first is the Interdisciplinary Design Institute (IDI) in Spokane. The strength of this program is still evolving, but does express a strong potential in a range of key areas unique to the mission of SOACM. Students are provided opportunities for a more urban community experience along with an ability to engage in inter- and intraprofessional collaborations with Interior Design, Construction Management, and Landscape Architecture students and faculty during the fall semester of fourth year. The second unique component is the development of the 5Y2"year M.Arch. program that will enhance the curriculum of the current B.Arch. program. Also, the M.Arch. incorporates the mission of the SOACM to educate well-rounded future architects for the profession.

A. Students, Faculty and Alumni (related to Conditions 1.1, 1.2 and 1.3)

1. The architecture faculty represents a major strength to the program. It is active in scholarship and creative activities and it exhibits shared values and camaraderie. While the faculty has diverse backgrounds and pedagogical approaches to architectural education, it works in a highly collegial and effective way. Its dedication and enthusiasm to architectural education and specifically to the WSU SOACM is highly commendable.

2. The students in the school are a major strength to the program. They are articulate critics with mature insights into how to improve the program and make it a stronger learning community for the future.

3. The diversity of the faculty and students has increased.

4. The student publication, Influx, and recent exhibitions of student work showcase the excitement of the program.

5. The professional focus of the program is a strength. The team saw much
evidence of a highly competent and focused program on the design of buildings. The beautiful basswood models and precise drawings demonstrate the school's commitment to educating students who will go into the profession and create significant architecture.

6. The program's success shows up in the young, bright, and energetic alumni who stay actively involved with the program.
B. Academic Environment (related to Conditions 1.1 and 1.5)

1. A Strong potential accomplishment of the IOI is to facilitate a coordination and understanding between Architecture and the disciplines of Interior Design, Landscape Architecture, and Construction Management.

2. The Architectural Library is a real strength for the school. Its "in-house" location is critical to the overall health and vitality of the architecture program. This proximity must be maintained in the SOACM.

3. Carpenter Hall is an excellent facility. This building is well maintained and utilized.

C. Administrative Structure (related to Condition 10)

1. The program's leadership has been very creative in engaging the entire academic community in the shared vision for the program.

2. The staff at the school is superb. It is effective at managing a complex and diverse set of activities in an extremely efficient and effective manner.

D. Curriculum (related to Conditions 11 and 12)

1. The proposed 5%-year M.Arch. program improves the curriculum of the current B.Arch. program. The constitution of the curriculum will improve the matriculation of students and provide enrichment activities for students to pursue.

2. The "Defining Standards for Design Studio at WSU" document is a well-articulated framework for understanding the identified areas of knowledge for studio projects. The application matrix clearly shows how these areas of emphasis work for the entire studio structure of the curriculum. This document provides a clear understanding of how the graduate portion of the M.Arch. program will interface with the foundation design studios.

E. Strategic Plan: 1996-2001 (related to Condition 7)

1. This comprehensive plan involved the input of faculty, students, and alumni. Many aspects of the plan have been accomplished as outlined in the initial objectives from 1996. There is a strong plan for the future. Examples include hiring of digital media design faculty members, evolution of the IOI program, hiring of a new construction faculty member, and development of a student advising system.

2. Progress Since the Previous Site Visit

Condition 3.4, Recognition of Ethical Responsibilities. Previous Team Report: The language in Appendix 5.5 does not appear in the University catalog.

The University and the School of Architecture publish statements of Equal Employment Opportunity and Affirmative Action. Statistics taken from the APR from 1995 indicate few African-American, Native American and Hispanic students are enrolled or graduate from the Architecture School. The statistics for the Engineering Program are similar. No African-American, Native American or Hispanic student graduated in Architecture in 1995 or 1996. In 1996, 19% of graduates were women and 4% were Asian Pacific. The team found no evidence of
This issue has been addressed.

**Criterion 8:** Understand how individuals and groups of differing gender, race, ethnic
diversity, and socio-economic status respond to and are affected by these issues.

**Previous Team Report:** Although there is general exposure to how individuals and groups of differing gender,
race, Pullman's relatively remote location, efforts could be made to expand the school's understanding
of these issues through development of the history and studio courses, and perhaps through a
more diverse and better supported enrichment program.

This issue has been addressed.

**Criterion 14:** Understand the basic principles of order underlying two- and three-dimensional
design. Previous Team Report: There is limited evidence of early 3-D development of projects
beyond the plan stage. There is the potential for the computer to assist as a tool for enhancing
these basic principles.

This issue has not been fully addressed. There are inconsistent outcomes in the first 2
years of the design studio that need to be sorted out. The differing outcomes seem to
be either focused on providing students with exposure to design tools or exposing
students to design principles.

**Criterion 18:** Be able to evaluate the success of designs in the fulfillment of programmatic,
technical, contextual and aesthetic objectives. Previous Team Report: Although contextual
objectives are addressed in an elective course, "Site and Landscape Design," evidence of
projects dealing with the contextual issues are not widespread. Buildings are dealt with mostly as
objects.

This issue has been well met. There are many good examples of projects that respond
to the context on multiple levels.

**Criterion 27:** Understand the problems related to the use of hazardous and toxic materials in
new and existing buildings. Previous Team Report: The team observed no evidence of
understanding of the problems relating to the use of hazardous and toxic materials in new and
existing buildings.

This issue has been addressed.

**Criterion 30:** Be able to use architectural history and theory in the critical observation and
discussion of architecture and bring an understanding of history to bear on the design of buildings
and communities. Previous Team Report: The History program has a strong focus on Western
Tradition with limited integration into the design projects. The program lacks exposure to history outside of Western tradition.
This issue has been addressed; however, the exposure to non-Western traditions in the curriculum is still weak. Potential models for adoption across the curriculum include Prof. Zamizay's Islamic Architecture Course and his Third-Year Design Studio exploring the Afghanistan reconstruction and Prof. Wang's East-West Philosophy Course and proposed summer program in China.
Criterion 47: Be aware of the roles of value engineering, life cycle cost analysis and construction cost estimating in the framework of a design project. Previous Team Report: It is not apparent that students are being made aware of the roles of value engineering, life-cycle cost analysis and construction cost estimating in the framework of a design project.

This issue has not been addressed. This information in relationship to the framework of the design project can only be learned about through elective courses in Construction Management. There is a future plan of the program to include this content in a required course.

3. Conditions Well Met

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Ethics and Professional Judgment

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5. Causes of Concern

The team's concerns are divided into three broad categories: general issues, the Pullman campus, and the Spokane campus. It understands that there is a "single and coherent program." The team feels there is a need to focus comments to the specific locations.

General

- **Advising:** Even though the program has made some progress, there is some concern that the advising program is an uneven experience for students. The program has developed a mechanism for improving the advising system.

- **Digital Media Integration:** The integration of computers into design studio pedagogy is spotty at best. While there are examples of advanced use of the computer, there is no evidence that all students have equal encouragement and education to fully integrate the computer into the design studio. The school is currently searching for a new faculty member with expertise in computer integration and hopefully this new person will have a positive impact on this area of concern.

- **Early Design Sequence:** There does not seem to be a strong concept for or consistent commitment to teaching fundamental design principles. The core values that students receive in their first design studios seem to vary widely and depend primarily on the desires and approaches of individual faculty members. Although the school has embarked on
f design studio outcomes for the entire curriculum, the results of this effort were not yet apparent in student work from the earliest design studios. A corollary to this concern is the large student-to-faculty ratio that occurs in the first-year studio, sometimes as great as 60:1 (with one Teaching Assistant). This large teaching load makes
it very difficult to give students the individual attention they need to develop their fundamental design skills. Further complicating the issue is the extremely high general education requirement imposed on the university by the state of Washington. This requirement keeps the school from offering design studios in the first year with more contact hours.

- **Pullman Campus Operating Budget**: The team has significant concerns about the school's operating budget. Currently the school is staying in the black only because several tenure-track positions have been filled with adjunct instructors. When all of the tenure-track lines are filled, the school will be operating with a $25,000 budget shortfall, which will have to come from development monies. This will have a severely negative impact on the school. Development monies are currently being used to provide enrichment opportunities to faculty and students. Given the remoteness of the Pullman campus, these enrichment activities are absolutely essential to the success of the program.

The operational budget for the SOACM is also not comparable to the resources provided to departments of similar sizes in the college. The program is twice the size of the Civil Engineering Department and receives almost $40,000 less for operation. It is about the same size as the Mechanical Engineering Department and receives almost $37,000 less for operation.

**Interdisciplinary Design Institute (IOI) in Spokane**

- The team feels that the Pullman and the Spokane campuses should be looked at as one program. It just so happens that there is a dean of the Spokane campus and a dean of the College of Engineering and Architecture, a director for the IOI, and a director of the SOACM. The direction of the Pullman campus established curriculum should set the direction for the Spokane program.

**Faculty Development**

- There is a concern that the funding at the Spokane campus ($750 total annual budget per capita for professional development activities) is at a much lower level than that of the Pullman campus.

- A clear policy is needed regarding the amount of administrative overhead charged on faculty grants (e.g., community service grants). A fair amount of faculty time seems to be wasted on dealing with the politics of the grant overhead.

- A clear policy is needed for development activities. Reporting the receipt of discipline-specific donations earmarked for specific activities should be done.

**Computer Integration Issues**

- There is a problem with the correlation between the computer tools that are available in Pullman but not available at the Spokane facility. Although the program indicated that the AutoCAD course in Spokane teaches 3-D modeling and that there are 24 site licenses for 3-D modeling software at the Spokane campus, students have expressed frustration in not having access to 3-D modeling software that they have had access to on the Pullman campus. Whereas there are a few opportunities for learning about 2-D software applications outside the campus, there is no access to 3-D software courses. All 3-D software courses are at Pullman.
Information Resources

- The interlibrary loan process works well. Periodical journals need to be more current. Donated materials are much too out of date to be useful.

- There is a concern that the information resources will not be adequate to address the needs of an M.Arch. program. Consideration should be given to how expand a library for this second campus that, though it would not duplicate the library resources in Pullman, should provide a mechanism for the students to have access to current resources needed for a graduate-level program.

Administrative Structure

- There is concern that the level of support for faculty development is much lower in Spokane than in Pullman, putting those architecture faculty members at a real disadvantage.

- The service learning needs of the IOI should be worked out in concert with the SOACM curriculum.

- The service learning projects should align with either the research interest of faculty or the pedagogical objectives of the collaborative studios or interdisciplinary courses.

- Articulating the common ties among the design disciplines along with distinguishing among the discipline-specific assets that can be brought to the collaboration should help. It is important to distinguish the role of the Construction Management discipline as more "design making" than an "administrative role in managing the process of making" to improve the collaborative framework of this process.

- The Spokane dean and IOI director need to have a more balanced communication with all the disciplines of IOI, and more involvement is needed on their part in working with the faculty to generate a collective vision for the IDI. This document could be modeled after the new M.Arch. program document that could explain the vision of the IOI.

Curriculum

- There does not seem to be a consistency in how the fourth-year fall semester studios are run.

- Due to the manner in which the collaborations are set up, there seem to be too many unknowns to predetermine course outcomes.

- The hiring of adjunct faculty members for the program should be done in consultation with Director Kessler. In some cases adjuncts have been hired who are not properly prepared to teach assigned classes.

Physical Resources

- Greater parity of physical resources is needed for the architecture discipline. A computer animation facility would be a useful resource for the architecture students/faculty just as the recent GIS Lab resource has been useful to the Landscape Architecture students and faculty.

- The model shop needs additional hours to allow for greater access to more students. Security problems need to be fixed. A few pieces of equipment have disappeared because the door must be left open when the paint booth ventilation system is on.

- In the photo documentation facility the currently configured room and equipment are inadequate and the setup seems temporary.
II. Compliance with the Conditions for Accreditation

1. Program Response to the NAAB Perspectives

Programs must respond to the relevant interests of the five constituencies that make up the NAAB: education (ACSA), members of the practicing profession (A/A), students (A/AS), registration board members (NCARB), and public members.

1.1 Architecture Education and the Academic Context

The program must demonstrate that it both benefits from and contributes to its institutional context.

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The school is very visible at the university. The president and provost (at the university for only 2 months) are both intimately familiar with the high quality of courses and faculty activities. From their perspective, the SOACM performs a vital service for the university by establishing a model for collaboration for other disciplines on campus to follow. Having the Construction Management (CM) Department within the SOACM is a good fit. The recent hire of a new CM faculty member will provide building design with a stronger constructability focus.

The (IOI) in Spokane, a program that is still evolving, does provide opportunities for a more urban community experience. It engages students and faculty in inter-and intraprofessional collaborations with Interior Design, CM, and Landscape Architecture students and faculty members during the fall semester of fourth year. The development of the SY2-year M.Arch. program will further enhance the curriculum of the current B.Arch. program and strongly emphasize the mission of the SOACM to educate well-rounded future architects for the profession.

1.2 Architecture Education and Students

The program must demonstrate that it provides support and encouragement for students to assume leadership roles during their school years and later in the profession, and that it provides an interpersonal milieu that embraces cultural differences.

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The students benefit from a supportive faculty and administration within the SOACM. In general, the faculty members promote professional and personal relationships that are nurturing to the architecture students. This is evident in the advising program that attempts to link individual faculty members to a small number of architecture students. After students are admitted into the third year, this camaraderie is evident in the student relationships. Students are often encouraged to work together in teams. The environment described above provides a basis for students to develop critical thinking skills centered on the extensive academic experience to which they have access.

Whereas statistics still reflect an underrepresentation of minorities and women in the program, there is no reason to believe that this reflects any form of discrimination. In fact, students are equally praised and criticized irrespective of their particular race, gender, or ethnicity. The school emphasizes the diversity of the student body and
encourages students to form their own opinions in response to architectural and ethical questions in both class and studio work. Through the faculty, administration, and a strong AIAS chapter, boundaries are gently reinforced without compromising the individuality of each student. These findings indicate that the program recognizes the fact that the approach to students is an essential measure of the quality of an architecture education.

1.3 Architecture Education and Registration

*The program must demonstrate that it provides students with a sound preparation for the transition to internship and licensure.*

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The architecture students at Washington State University exhibit the qualities of young professionals who are well prepared to advance through their career paths. The mentoring of the preprofessional students by the fourth- and fifth-year students enriches the Architectural Program there. This contributes to the successful completion of the program, which addresses the NAAB criteria and provides a solid foundation for their architectural education.

Recent WSU graduates offered evidence of current success in the early years of their postgraduate careers with articulate conversation about personal involvement in their respective firms. Recognizing the value of the Intern Development Program (IDP), the graduates are using the IDP requirements to orchestrate access to the variety of experiences necessary to allow them to qualify for the Architectural Registration Examination (ARE). It appears that a high percentage of graduates intend to complete the ARE and become licensed professionals.

1.4 Architecture Education and the Profession

*The program must demonstrate how it prepares students to practice and assume new roles within a context of increasing cultural diversity, changing client and regulatory demands, and an expanding knowledge base.*

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Preparing for the profession has been a longstanding mission of the WSU SOACM. The professional focus of the program is evident and WSU graduates have developed an impressive record of employment and success in architectural practice in the Northwest and throughout the United States. Because the remoteness of Pullman makes frequent contact with the profession difficult, the school has done a very good job of finding creative ways of making linkages. Practicing architects are regularly invited back to Pullman to serve on design reviews and some studios have taken field trips to major Northwest cities in order for the students to present their work to practicing architects within the context of their own firms. The Spokane program offers special opportunities for internships and for connecting students with practicing architects. The school's Advisory Council has representatives from a broad range of professionals who take an active role in policy development and curricular issues.
Discussions with recent alumni indicate a high level of enthusiasm for their alma mater and confidence in their abilities in the workplace. Their sense of pride and success as graduates of the WSU SOACM speaks positively of the school's commitment to the profession.

1.5 Architecture Education and Society

The program must demonstrate that it not only equips students with an informed understanding of social and environmental problems but that it also develops their capacity to help address these problems with sound architecture and urban design decisions.

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Architecture education at WSU is defined through values shared by the faculty and students. The position of architecture in society has long been defined regionally through the strong relationship to the professional communities of the Pacific Northwest. As the school broadens its outreach, leveraging those traditional ties, students are prepared to interact with the issues of an increasingly diverse regional population and community.

The faculty, with its diverse cultural background, brings to the school a broad range of sociocultural and geopolitical perspectives. Combined with active international programs in London and Copenhagen, new connections to Western Asia and China will afford students a deeper view of global issues.

Students at WSU are nurtured to expand their vision of, understanding of and empathy with social and ecological conditions previously unfamiliar to them. They are expected to meet changing global conditions with diverse, appropriate design responses. Within these expectations, students are given an ethical framework to evaluate their view of society and the world.

2. Program Self-Assessment

The program must provide an assessment of the degree to which it is fulfilling its mission and achieving its strategic plan.

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This condition is well met. The program's assessment is clear and helps to understand the strengths, weakness, and future direction of the program.

3. Public Information

The program must provide clear, complete and accurate information to the public by including in its catalog and promotional literature the exact language found in Appendix A-2 [of the NAAB 1998 Conditions and Procedures], which explains the parameters of an accredited professional degree program.

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4. **Social Equity**

The program must provide all faculty, students, and staff irrespective of race, ethnicity, creed, national origin, gender, age, physical ability, or sexual orientation-with equitable access to a caring and supportive educational environment in which to learn, teach, and work.

5. **Human Resources**

The program must demonstrate that it provides adequate human resources for a professional degree program in architecture, including a sufficient faculty complement, an administrative head with enough time for effective administration, administrative and technical support staff, and faculty support staff.

This condition is met, but not well met as there is a need for additional staff.

6. **Human Resource Development**

Programs must have a clear policy outlining both individual and collective opportunities for faculty and student growth within and outside the program.

This condition is also met, but not well met. Spokane program policies are not clear for faculty development and student enrichment.

7. **Physical Resources**

The program must provide physical resources that are appropriate for a professional degree program in architecture, including design studio space for the exclusive use of each full-time student; lecture and seminar spaces that accommodate both didactic and interactive learning; office space for the exclusive use of each full-time faculty member; and related instructional support space.

8. **Information Resources**

The architecture librarian and, if appropriate, the staff member in charge of visual resource or
other non-book collections must prepare a self-assessment demonstrating the adequacy of the architecture library.

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This condition is met, but not well met. Spokane needs to provide a broad selection of current periodicals for student access comparable to that of Pullman.
9. Financial Resources

Programs must have access to institutional support and financial resources comparable to those made available to the other relevant professional programs within the institution.

Met [ ] Not Met [X]

This condition is not met. There are various budget concerns and deficiencies in the Spokane IOI program. Resources for faculty development are inadequate. Students need computers and software equivalent to those provided for students at Pullman. Student enrichment through a consistent and vital lecture series is minimal. Resources need to be provided to the Spokane campus library for the purchase of up-to-date architecture periodicals. A clear policy and vision for utilizing development funds earmarked for the architecture program needs to be articulated. Also, the operational budget for the SOACM is not comparable to the resources provided to departments of similar sizes in the college. The program is twice the size of the Civil Engineering Department and receives almost $40,000 less for operation. It is about the same size as the Mechanical Engineering Department and receives almost $37,000 less for operation. The program is approximately $25,000 in the red every year.

10. Administrative Structure

The program must be a part of, or be, an institution accredited by a recognized accrediting agency for higher education. The program must have a degree of autonomy that is both comparable to that afforded to the other relevant professional programs in the institution and sufficient to assure conformance with all the conditions for accreditation.
ure is a close-knit group working efficiently together to provide positive leadership for the school. The relatively small support staff is spirited, professional, and well respected by students and faculty.

11. Professional Degrees and Curriculum

The NAAB only accredits professional programs offering the Bachelor of Architecture and the Master of Architecture degrees. The curricular requirements for awarding these degrees must include three components—general studies, professional studies, and electives—which respond to the needs of the institution, the architecture profession, and the students respectively.

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12. Student Performance Criteria

The program must ensure that all its graduates possess the skills and knowledge defined by the performance criteria set out below, which constitute the minimum requirements for meeting the demands of an internship leading to registration for practice.
12.1 Verbal and Writing Skills

Ability to speak and write effectively on subject matter contained in the professional curriculum

Met Not Met
[X] [ ]

This criterion is well met: Students speak and write very well.

12.2 Graphic Skills

Ability to employ appropriate representational media, including computer technology, to convey essential formal elements at each stage of the programming and design process

Met Not Met
[X] [ ]

This criterion is met, but not well met. While there are many outstanding examples of the students’ graphic abilities, there is inconsistency in the overall results. It appears that the problem stems from a lack of coordination of standards and expectations in the first 2 years of the program. Freehand sketching is not consistently visible either in the studio or in the exhibit of student work. There are, however, excellent examples of freehand drawings in a few of the sketchbooks of students attending international study programs. There is limited evidence of integration of digital media with traditional media. The understanding and use of color is limited throughout all levels of work.

12.3 Research Skills

Ability to employ basic methods of data collection and analysis to inform all aspects of the programming and design process

[X] [ ]

12.4 Critical Thinking Skills

Ability to make a comprehensive analysis and evaluation of a building, building complex, or urban space

[X] [ ]

12.5 Fundamental Design Skills

Ability to apply basic organizational, spatial, structural, and constructional principles to the conception and development of interior and exterior spaces, building elements, and components

[X] [ ]

There does not seem to be a strong conception of or consistent commitment to teaching fundamental design principles. The core values that students receive in their first design studios seem to vary widely and depend primarily on the desires and approaches of individual faculty members.
Ability to identify and assume divergent roles that maximize individual talents, and to

12.6 **Collaborative Skills**

cooperate with other students when working as members of a design team and in other settings

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This criterion is well met. The Spokane campus provides a unique opportunity to engage in inter- and intraprofessional collaborations.

12.7 **Human Behavior**

Awareness of the theories and methods of inquiry that seek to clarify the relationships between human behavior and the physical environment

12.8 **Human Diversity**

Awareness of the diversity of needs, values, behavioral norms, and social and spatial patterns that characterize different cultures, and the implications of this diversity for the societal roles and responsibilities of architects

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12.9 **Use of Precedents**

Ability to provide a coherent rationale for the programmatic and formal precedents employed in the conceptualization and development of architecture and urban design projects

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This criterion is met, but not well. Use of precedent was found, but not consistently across the program.

12.10 **Western Traditions**

Understanding of the Western architectural canons and traditions in architecture, landscape, and urban design, as well as the climatic, technological, socioeconomic, and other cultural factors that have shaped and sustained them

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12.11 Non-Western Traditions

Awareness of the parallel and divergent canons and traditions of architecture and urban design in the non-Western world

- Met
- Not Met

Afghanistan and Prof. Wang’s proposed summer foreign travel to China provide potential models for wider adoption in the curriculum. Discussion seems to be absent in history courses (although included in the syllabus) and infrequent in design and theory courses.

12.12 National and Regional Traditions

Understanding of the national traditions and the local regional heritage in architecture, landscape, and urban design, including vernacular traditions

- Met
- Not Met

12.13 Environmental Conservation

Understanding of the basic principles of ecology and architects’ responsibilities with respect to environmental and resource conservation in architecture and urban design

- Met
- Not Met

12.14 Accessibility

Ability to design both site and building to accommodate individuals with varying physical abilities

- Met
- Not Met

This criterion is not met because it is not explicitly shown at any level in the design work.

12.15 Site Conditions

Ability to respond to natural and built site characteristics in the development of a program and design of a project

- Met
- Not Met
12.16 Formal Ordering Systems

Understanding of the fundamentals of visual perception and the principles and systems of order that inform two- and three-dimensional design, architectural composition, and urban design

Met Not Met
[X] [ ]

14
This criterion is met, but not well. A wide and inconsistent range of using formal ordering systems in the design process was evident. However, in a few cases, projects were "well met" regarding the expression of these systems.

12.17 Structural Systems

Understanding of the principles of structural behavior in withstanding gravity and lateral forces, and the evolution, range, and appropriate applications of contemporary structural systems

- Met
- Not Met

Caper, which provide an excellent structures foundation.

In general, this criterion is met but not well. The exception is the courses taught by Ken.

12.18 Environmental Systems

Understanding of the basic principles that inform the design of environmental systems, including acoustics, lighting and climate modification systems, and energy use

- Met
- Not Met

This criterion could be better met. There is an insufficient understanding of the relationship between Environmental Control Systems (ECS) and the design studio projects.

12.19 Life-Safety Systems

Understanding of the basic principles that inform the design and selection of life-safety systems in buildings and their subsystems

- Met
- Not Met

12.20 Building Envelope Systems

Understanding of the basic principles that inform the design of building envelope systems

- Met
- Not Met
12.21 Building Service Systems

Understanding of the basic principles that inform the design of building service systems, including plumbing, electrical, vertical transportation, communication, security, and fire protection systems

Met [X] Not Met [ ]
Building Systems Integration

Ability to assess, select, and integrate structural systems, environmental systems, life-safety systems, building envelope systems, and building service systems into building design.

12.22

12.23 Legal Responsibilities

Understanding of architects' legal responsibilities with respect to public health, safety, and welfare; property rights, zoning and subdivision ordinances; building codes; accessibility and other factors affecting building design, construction, and architecture practice.

12.24 Building Code Compliance

Understanding of the codes, regulations, and standards applicable to a given site and building design, including occupancy classifications, allowable building heights and areas, allowable construction types, separation requirements, means of egress, fire protection, and structure.

12.25 Building Materials and Assemblies

Understanding of the principles, conventions, standards, applications, and restrictions pertaining to the manufacture and use of construction materials, components, and assemblies.

12.26 Building Economics and Cost Control

Awareness of the fundamentals of development financing, building economics, and
construction cost control within the framework of a design project

<table>
<thead>
<tr>
<th>Met</th>
<th>Not Met</th>
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<tr>
<td>[X]</td>
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</table>

12.27 Detailed Design Development

Ability to assess, select, configure, and detail as an integral part of the design appropriate combinations of building materials, components, and assemblies to satisfy the requirements of building programs

<table>
<thead>
<tr>
<th>Met</th>
<th>Not Met</th>
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<tbody>
<tr>
<td>[X]</td>
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</tbody>
</table>
This criterion could be better met. The team spotted inconsistent design development details in the fourth- and fifth-year studios.

### Technical Documentation

<table>
<thead>
<tr>
<th>12.28</th>
<th>Ability to make technically precise descriptions and documentation of a proposed design for purposes of review and construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met</td>
<td>Not Met</td>
</tr>
<tr>
<td>[X]</td>
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</tbody>
</table>

This criterion could be better met. The team found inconsistent design technical documentation in the fourth- and fifth-year studios.

### Comprehensive Design

<table>
<thead>
<tr>
<th>12.29</th>
<th>Ability to produce an architecture project informed by a comprehensive program, from schematic design through the detailed development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building assemblies, as may be appropriate; and to assess the completed project with respect to the program's design criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met</td>
<td>Not Met</td>
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<tr>
<td>[X]</td>
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</tbody>
</table>

This criterion could be better met. The team ran across inconsistent comprehensive design projects in the fourth- and fifth-year studios. A noticeable gap existed between the strong and weak comprehensive design projects.

### Program Preparation

<table>
<thead>
<tr>
<th>12.30</th>
<th>Ability to assemble a comprehensive program for an architecture project, including an assessment of client and user needs, a critical review of appropriate precedents, an inventory of space and equipment requirements, an analysis of site conditions, a review of the relevant laws and standards and an assessment of their implications for the project, and a definition of site selection and design assessment criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met</td>
<td>Not Met</td>
</tr>
<tr>
<td>[X]</td>
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</tbody>
</table>

### The Legal Context of Architectural Practice

<table>
<thead>
<tr>
<th>12.31</th>
<th>Awareness of the evolving legal context within which architects practice, and of the laws pertaining to professional registration, professional service contracts, and the formation of design firms and related legal entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met</td>
<td>Not Met</td>
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<tr>
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</tbody>
</table>

### Practice Organization and Management

<table>
<thead>
<tr>
<th>12.32</th>
<th>Awareness of the basic principles of office organization, business planning, marketing, negotiation, financial management, and leadership, as they apply to the practice of architecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met</td>
<td>Not Met</td>
</tr>
<tr>
<td>[X]</td>
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</tr>
</tbody>
</table>
12.33 Contracts and Documentation

Awareness of the different methods of project delivery, the corresponding forms of service contracts, and the types of documentation required to render competent and responsible professional service

Met [X] Not Met [ ]

12.34 Professional Internship

Understanding of the role of internship in professional development, and the reciprocal rights and responsibilities of interns and employers

Met [X] Not Met [ ]

12.35 Architects' Leadership Roles

Awareness of architects’ leadership roles from project inception, design, and design disciplines, post-occupancy evaluation, and facility management

Met [X] Not Met [ ]

12.36 The Context of Architecture

Understanding of the shifts which occur-and have occurred-in the social, political, technological, ecological, and economic factors that shape the practice of architecture

Met [X] Not Met [ ]

This criterion could be better met. There is limited visible evidence in dealing with the ecological issues of architecture.

12.37 Ethics and Professional Judgment

Awareness of the ethical issues involved in the formation of professional judgments in architecture design and practice

Met [X] Not Met [ ]

This criterion is well met. Prof. Don Mirkovich's Arch 473 Course on Professional Practice provides a comprehensive look at the ethical issues of the profession. Alumni and students have remarked on how much this course has informed the way they see practice.
Appendix A: Program Information

1. History and Description of the Institution

The following text is based on the 2001 Washington State University Architecture Program Report.

Washington State University, the state's land grant university, prepares individuals for productive lives and professional careers, conducts basic and applied research, and provides public service statewide. Founded in Pullman in 1890, WSU became a multicampus system in 1989 with the establishment of campuses in Spokane, the Tri-Cities, and Vancouver. Degree and nondegree courses are available as well through regional learning centers around the state and through the extended degree programs.

The university consists of 10 colleges and a graduate school. For more than a century, WSU has offered strong and varied academic programs. The liberal arts and sciences have always occupied an important place in the curriculum, along with business, education, architecture, pharmacy, nursing, and the traditional land grant programs in agriculture and home economics, engineering, and veterinary medicine.

The university offers nearly 100 major fields of study. Bachelor's of Art degrees are available in all major areas, with master's and doctoral degrees available in most. The new undergraduate core curriculum, including world civilization courses and expanded writing requirements, is nationally recognized. WSU's University Honors College is one of the oldest and most well respected all-university programs for academically talented students. *Money* magazine has called WSU a "public ivy" and rated the Honors College one of the best in the nation.

Washington's only statewide university, WSU has Cooperative Extension offices in all 39 counties, 11 regional learning centers, seven research and extension facilities in various locations, and 24 Small Business Development Centers statewide. The Intercollegiate Center for Nursing Education has a satellite nursing center in Yakima, and students can take Washington Higher Education Telecommunications System (WHETS) courses from Wenatchee (via WSU Vancouver). The university runs the WHETS, which transmits live, interactive instruction to the branch campuses and other sites. WSU offers several bachelor's degrees via a variety of distance learning technologies to place-bound students within Washington and nationwide, including those in the social sciences, human development, business administration, and criminal justice.

WSU's instructional faculty of approximately 1,230 and including a substantial number of scholars with national and international reputations, is responsible for instruction that opens students' minds to the most recent knowledge and discoveries. The opportunity for students to know and work closely with their instructors is one advantage of a medium-sized, residential campus such as WSU Pullman. Personal attention from faculty is also a hallmark of the branch campuses.

The heart of the WSU system is the Pullman campus. WSU has about 18,000 students, including those in Pullman, at the Intercollegiate Center for Nursing Education (ICNE)/College of Nursing, and in the Extended Degree Programs. Of these, about 16,000 are undergraduates and nearly 2,000 are graduate students. Pullman is one of the largest residential campuses west of the Mississippi with about half of the student body living in residence halls, single and family student apartments, and fraternity and sorority houses. Here, students of diverse social, economic, and ethnic backgrounds from
throughout the nation and more than 90 foreign countries come together in a community in which education is the principal industry and human development the primary concern.

More than 3,200 juniors, seniors, and graduate students are enrolled at WSU campuses in Spokane, the Tri-Cities, and Vancouver. The branch campuses serve place-bound individuals who have had limited opportunities to complete bachelor's and master's degrees. WSU's main campus is located in the Palouse country of southeast Washington, where much of the nation's finest wheat and legumes are produced. Several small but expanding high-tech firms are diversifying Pullman's economy. The [250-hectare] 620-acre campus features modern classrooms and laboratories, libraries, museums, student residences, recreational and athletic facilities, a student union, and a community hospital. A recent library addition has doubled WSU's library capacity. Of special note are a one-of-a-kind alumni center, a fine arts building with galleries, a state-of-the-art chemistry building, and the new music school building.

The College of Engineering and Architecture provides accredited undergraduate education throughout the state in Engineering, Architecture, Construction Management, Computer Science, and Environmental Science to prepare students for productive roles in a technology-based society. Design is a common emphasis across all college disciplines. Team-based laboratory learning, interactive environments, and continuously upgraded learning equipment are features of the CE&A. The School of Architecture and Construction Management is the administrative unit within the college providing degrees in Architecture and Construction Management.

2. Institutional Mission

The following text is based on the 2001 Washington State University Architecture Program Report.

As a premier public, land grant, and research institution, Washington State University (WSU) enhances the intellectual, creative, and practical abilities of the individuals, institutions, and communities that we serve by fostering learning and inquiry in all their forms. WSU is guided by a commitment to excellence embodied in a set of core values.

- **Inquiry and Knowledge:** Intellectual growth is at the heart of WSU's mission, striving to instill within all students, staff, and faculty a love of learning. We are committed to developing an informed citizenry and to fostering intellectual inquiry in all its forms-empirical, theoretical, aesthetic-and to developing the capacity for thoughtful reasoning.
- **Application:** We are committed to applying knowledge and expertise to address complex issues whose scope may be regional or global-especially, but not only, as that application enhances our knowledge and understanding.
- **Leadership:** We are guided by an ethic of leadership and service that recognizes the importance of identifying, creating, and responding to the interests and needs of WSU’s diverse constituencies.
- **Character:** WSU aims to create, through our work and our relationships, a context that cultivates individual virtues and institutional integrity. We recognize that in order to serve our diverse communities we must first be a community within WSU that extends mutual respect and regard for all individuals, roles, and ideas.

At any point in time, one or more of these values may be tested and particular values may be given added emphasis. Two additional superordinate values give needed balance to and support of these values as well as to their implementation:

- **Stewardship:** Careful shepherding of our financial, human, capital, and intellectual
resources is necessary for us to execute our values. In addition, the mission of the
institutions is most likely to be achieved when faculty and staff at WSU take responsibility for upholding the full scope of these values.

- **Diversity:** Inherent in all of these values is a commitment to diversity. Exposure to and respect for diverse beliefs, epistemologies, experiences, genetic makeup, social roles, and abilities are essential to achieving our mission.

3. **Program History**

*The following text is based on the 2001 Washington State University Architecture Program Report.*

Architectural education at Washington State University began in the early 1900s. In 1911, architecture courses were listed in the catalog of the then-named State College of Washington, leading to a 4-year Bachelor of Science degree. The core faculty for architecture was Elmer A. Tilden, an instructor in the Department of Mechanical and Electrical Engineering.

The 4-year program was given departmental status in 1913. Rudolph Weaver was first head of the program, then chair of the department from 1914-23. Weaver was also campus architect and the designer of Carpenter Hall, the current home of the school. He subsequently left WSU to develop the architecture programs at the University of Idaho and the University of Florida.

The B.S. in Architecture degree was granted until 1920. At that time, the degree designation was changed to a B.A. in Architecture, which was offered until 1922. A three-year certificate in Architecture was granted from 1922-31. In 1928, the department changed its name to Architectural Engineering at the same time changing the degree designation to a 4-year B.S. in Architectural Engineering.

In 1946, the curriculum was revised and extended to span 5 years, but it was not until 1966 that the department granted a Bachelor of Architecture degree. At this time, the academic unit was renamed the Department of Architecture. The process for NAAB accreditation soon followed with the first 5-year accreditation bestowed in 1972. The accreditation has been renewed on a regular basis ever since.

In 1984, the College of Engineering was renamed the College of Engineering and Architecture with the Department of Architecture given school status. In 1990, an optional studio was offered for fifth-year students at the Spokane branch campus. Today, one-third of the fourth- and fifth-year classes, and a small number of Master of Science in Architecture degree candidates, study for 1 year in Spokane at the Interdisciplinary Design Institute where emphasis is placed on interdisciplinary design, research, and community service. Students in Spokane participate in classes together with Interior Design and Landscape Architecture Design students.

In 1991, the School of Architecture consolidated in its newly renovated home on the Pullman campus in Carpenter Hall. The name was officially changed to the School of Architecture and Construction Management in 1998. Today, there are over 400 students working towards the 5-year Bachelor of Architecture degree, 30 studying for the 4-year Bachelor of Science, and five or six engaged in the 1%-year Master of Science in Architecture program, as well as about 300 students pursuing an accredited degree in Construction Management.
4. **Program Mission**

The following text is based on the 2001 Washington State University Architecture Program Report.

The mission of the School of Architecture and Construction Management at Washington State University is to educate future professional leaders in architecture and construction management who are critically aware of the environmental, technical, aesthetic, and social/cultural challenges of the next century. In addition, the School seeks to provide a foundation for graduates to pursue careers that will address critical issues concerning the future of the built environment.

5. **Program Strategic Plan**

The following text is based on the 2001 Washington State University Architecture Program Report.

Reference Section C.2, Progress Relative to the Program's Strategic Plan, for a full description of the School of Architecture Five-Year Plan, 1996-2001, and a description of Program Strengths and Future Directions.
Appendix B: The Visiting Team

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Representing the AIAS
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(973) 736-1741
kbojsza@andrew.emu.edu
Appendix C: The Visit Agenda

Saturday, March 9
11:00 a.m.- 2:00 p.m. Team arrives and checks in to the Marriott Courtyard hotel
3:00 p.m. Team meeting at the Design Institute
6:00 p.m. Tour of the Design Institute and meeting with the Spokane faculty
7:00 p.m. Dinner with the Spokane faculty and Bill Gray, Dean, Spokane Campus; Forster Ndubisi, Director, Design Institute; and Greg Kessler, Director, School of Architecture and Construction Management
9:00 p.m. Team orientation at the hotel

Sunday, March 10
7:30 a.m. Breakfast with the team
9:30 a.m. Team meeting with Bill Gray, Dean, WSU Spokane, at the Design Institute
10:30 a.m. Team meeting with Forster Ndubisi, Director, Design Institute
11:30 a.m. Team meeting with students
12:30 p.m. Lunch in Spokane
2:00 p.m. Team departure for Pullman
3:30 p.m. Team arrival in Pullman and check-in at the Holiday Inn Express
4:30 p.m. Tour of Carpenter Hall and setup in the Team Room
5:30 p.m. Reception for faculty and the team on the fifth floor of Carpenter Hall
6:30 p.m. Dinner with Greg Kessler; Anjan Bose, Dean, College of Engineering and Architecture; and David Mclean, Associate Dean for Instruction
8:30 p.m. Free period for team to work and review student work

Monday, March 11
8:00 a.m. Breakfast with Greg Kessler
9:00 a.m. Meeting with President Rawlins and Provost Bates
10:00 a.m. Meeting with Anjan Bose, Dean, College of Engineering and Architecture
11:00 a.m. Team visit to classroom
12:00 p.m. Lunch with the faculty
1:00 p.m. Meeting with the faculty on the fifth floor
2:00 p.m. Review of student work and visit to the design studio
4:00 p.m. Meeting with students in Room 102
5:30 p.m. Reception and dinner with alumni/ae
7:30 p.m. Free period for team to work

Tuesday, March 12
8:00 a.m. Breakfast with Greg Kessler
9:00 a.m. Meeting with the staff and librarians (Ledeman, Washburn, Mahaffy, Flowers, and Warrington)
10:00 a.m. Open for team meeting
12:00 p.m. Lunch with AIAS officers on the fifth floor of Carpenter Hall
1:00 p.m. Team meeting (classroom visitations and informal faculty visitations as needed)
5:30 p.m. Team-only dinner
7:00 p.m. Free period for team to work

Wednesday, March 13
7:30 a.m. Breakfast and exit interview with Greg Kessler
8:15 a.m. Exit interview with Anjan Bose and David Mclean
9:00 a.m. Exit interview with President Rawlins and Provost Bates
11:00 a.m. Schoolwide meeting in Room 102, Carpenter Hall
Afternoon Team Departures
IV. Report Signatures

Respectfully submitted,

Thomas Fowler, IV  Representing the ACSA
Team Chair

J. Randall Seitsinger  Representing the AIA
Team member

Káthrine Anna Bojsia  Representing the AJAS
Team member

En b  Representing the NCARB
Team member

Roger B. Williams, FAIA, JIA  Observer
4.6 Annual Reports
School: Washington State University
Degree Type(s):
Bachelor of Architecture (5 years)
Master of Architecture (5 years)
Next Visit (or Focused Evaluation): 2005
Annual Report Date: May 16, 2003

Nomenclature Review Date: December 11, 2002
Visiting Report Date: March 13, 2002

Submission Requirements

1. 2003 NAAB Statistical Report
   Received

2. Response to deficiencies identified in the most recent Visiting Team Report
   Received, see below

3. Summary of changes in the accredited program
   Received

Commentary on Conditions Not Met

9. Financial Resources
   Continue reporting accomplishments in this area.

12.5 Fundamental Design Skills

The Visiting Team Report identified inconsistent and under emphasis on core design skills. Continue reporting on the success of studio coordinator and include syllabus to document attention to this area.

12.11 Non-Western Traditions
Continue reporting on improvements in this area. In addition to faculty, elective courses, and travel, report on revisions to required courses to integrate non-western traditions.

12.14 Accessibility
Continue reporting on how this area of thought will be integrated into the curriculum and become present in design work. There should be clear visual evidence in student studio work for this condition in the next team visit.
Part II: The following are actions that have been taken as well as plans for the future to address the "conditions not met" from our spring 2002 accreditation visit.  

ways. As mentioned in the team report Professor David Wang and Professor Rafi Samizay teach a course on East-West philosophy of architecture and Islamic Architecture respectively. Professor Wang's course counts as a Tier Three GER. Over the past year approximately 253 of our students have enrolled in this course. Professor Samizay's course in Islamic Architecture is also a Tier Three GER for students in other disciplines. Students in architecture may take this course as an architecture emphasis elective. Both of these courses are new and developing courses and our expectation is that enrollments will increase over the next several years.

Other activities in this area include a study tour led by Professor Wang to China. This program will occur during the summer of 2003 and is a joint program with the Honors College at WSU. Over the last several years Professor Wang has worked diligently to establish formal ties with architecture programs in China, which has yielded the planned trip for this summer. Also, this spring we will be hosting a scholar from the University of Hong Kong for a week of lectures and critiques at the School. It is our expectation that the formal ties with China will evolve over the next several years to potentially include student and faculty exchanges.

We are also investigating the possibility of developing a foreign studies option in Peru. Professor Samizay has been working with individuals at the university in Lima in exploring areas and opportunities of study for our students.

results of one of our faculty searches last spring led to the hiring of Professor Taiji Miyasaka. Taiji was born and raised in Japan and received his undergraduate education in architecture at Kyoto University. Since his arrival we have begun some initial discussions with the architecture school at Nihon University in Tokyo. We are hopeful that these discussions will lead to new opportunities for our students and faculty.

Other factors influencing our curriculum in non-western traditions is the fact that we have five faculty that are of Asian and Middle Eastern decent. Two of these faculty are currently writing books on Islamic architecture and often integrate these topics in their design studios. Also, this past year we had a visiting scholar on the faculty from Syria who was conducting research and participated in students studio critiques.

Finally, we are conducting a search for a new faculty member in architectural history. With the addition of this new faculty in the fall of 2003 we will move to implement a segment of our core history courses to cover non-western traditions. This will be information that all students will receive regardless of whether they are in the four-year program or the graduate program.

12.5. Fundamental Design Skills: This past fall we initiated some specific actions to address this issue. In the first year we have appointed a coordinator who is responsible for establishing the syllabus, content and projects for all sections of architecture 101. The
coordinator works closely with the architecture 101 faculty as well as teaching assistants to ensure consistency of material delivered in this course. Another component that we have added is that there is now a one-hour lecture each week for all students enrolled in this course. This allows the coordinator to present to all 250 students the material that is being covered and the issues that need to be focused upon by the students. This process is working well and the level of coordination and consistency is excellent. We will continue the process of coordination for the second semester of architecture 103 this spring.

In the second year we have implemented a similar method by appointing a design level coordinator. (This has been implemented at all years.) The coordinator is responsible for making sure that our identified "areas of knowledge" for second year are being implemented throughout the semester. Throughout the semester the Director meets with the coordinators to discuss progress and problems that may be occurring. The coordinators also meet with faculty from their respective years to discuss consistency in terms of grading and project types. Each design level coordinator is responsible for providing the Director with a report at the end of the semester on progress of students during the semester and issues that may need to be addressed.

Indications are so far that this method identified above is having positive results and that there is an increased level of coordination and intention in the early years of the program. We will continue to refine and develop this methodology over the next year.

12.14 Accessibility: We continue to work at the integration of these issues into the design studio projects. While issues of accessibility for disabled are covered in our required codes course, we have begun to integrate this material into our studio courses. Accessibility is identified in our newly generated "areas of knowledge" matrix (reviewed by visiting team in March) for design studios, and as such will be emphasized with a high level of importance in the future. Several of our faculty work to integrate these issues into their studios by having students role play as a disabled person. As an example, students in these studios experience issues that directly impact individuals in wheel chairs to understand how buildings lack of accessibility can impact their life.

9.0 Financial Resources: Since the team visit in March, faculty development funds for the Spokane faculty have been increased by the Spokane Dean to $1,000 /year per faculty member. This is now at the same level as resources allotted to Pullman faculty for travel and professional development. In addition, new computers have been purchased in Spokane. The open lab now has thirty computers and the computers in the studio space have been updated. We are in the process of working with the Director of the Design Institute as well as the technical staff at both campuses in order to coordinate our purchases of software. This will allow continuity of software and computer applications between the Pullman and Spokane campus.

In terms of the Pullman operating budget we are continuing to work on this issue. WSU is not unlike other universities across the nation and is experiencing budget shortfalls. What is clear from this condition is that the School must continue to demonstrate to the administration that we are moving forward and that we have plans for the future. Our ability to be creative and demonstrate innovative methods of teaching and scholarly work is what will ensure that the School is positioned in the best way possible to receive available funds.
Part III: In addition to the above the School is looking towards some slight modifications in the M Arch program as we cycle through the first series of students in the graduate program. We will begin to offer more electives for the graduate students starting this fall with a course in urban design and planning as well as a new course in autocad working drawings. As we begin to move forward with courses that seek more integration between architecture and construction management we anticipate offering courses in estimating and scheduling.

Spokane we are making plans to begin to accept M Arch students in a two and three year degree track starting in the fall of 2004.
Note:
No NAAB response was provided in 2004
Annual Report 2004

The following are actions that have been taken as well as plans for the future to address the "conditions not met" from our spring 2002 accreditation visit.

1. **NAAB Two Page Statistical Report:** See Attached

2. **Response to deficiencies in 2002 Visiting Team Report**

9.0 Financial Resources: Over the past year development monies have increased by a factor of two. The School currently has development money to be used for discretionary purposes that is the highest in the last seven years. Both corporate and individual giving for the architecture program is approaching $50,000 for the last year.

In addition, the School has received significant contributions for new scholarships particularly for the graduate program. These include endowments established by two large firms in the state as well as specific yearly scholarships established by two other Washington State firms. Also our Jane Logan Scholarship was increased by $50,000 from the donor. The masonry industry which has been a long time supporter of our program has also established an endowment to support a distinguished lecturer as well as resources for our student masonry competition.

State supported resources continue to be a challenge. State operating budget has decreased over the last two years and we continue to look for creative methods and alternative sources of revenue through our development activities.

12.5. **Fundamental Design Skills:** As reported last year we have made substantial changes in the first two years to address fundamental skills. As a further development, all the syllabi for the first two years are coordinated between all sections. In addition there is a common evaluation sheet used by all faculty for design projects as well as coordination between sections through our areas of knowledge matrix that was developed by the school for design studios.

12.11. **Non Western Traditions:** In addition to the items identified in last years report we have made the following changes. Architecture 324 has been increased from two credits to three and is also a writing in the major course. The 333 increase in contact hours for this course has allowed for increased material in non western traditions to be introduced. We have hired a new history faculty who understands this need and has made deliberate changes in the syllabus to accommodate the non western traditions.

Professor Wang continues his work in China and will be teaching a course on the architecture of China in the spring of 2005 and will be leading a group of our students to China during the summer of 2005. Professor Samizay has spent the past year on professional leave in Afghanistan working to help rebuild the educational structure of the university as well as working on some master planning of the city of Kabul. We are hopeful that this will eventually lead to our students being able to travel and study in Afghanistan.
This past year two of our faculty published a book on the traditional values of architecture in Islamic culture. This book provides a great resource in non western architecture.

This past year the School co sponsored an exhibition with the Museum of Fine Arts on Afghanistan which attracted faculty, students and administrators throughout the university and community.

12.14 Accessibility: Building upon last years changes, the issue of accessibility continues to be integrated into the studio as well as required courses. Our comprehensive studio evaluation form identifies accessibility as one of our evaluation criteria. Studio syllabi and design reviews continue to raise student awareness of this issue.

3. Changes in accredited program:

Since our approved nomenclature change to the Master of Architecture as our accredited professional degree in January of 2003 we have not made any changes to the curriculum or the structure of the program. We continue to refine course content as well as defining outcomes and evaluation procedures for M Arch students. We have established an overall structure which governs graduate projects and identified six selected areas of knowledge that graduate students must demonstrate proficiency in order to complete the program.

- to continue refinements in course structure and focus in graduate projects.

Over the course of the next year we will continue with our assessment process which will lead

Our final class of Bachelor of Architecture students will be graduating in May of 2006
NAAB RESPONSE TO WASHINGTON STATE UNIVERSITY 2005 ANNUAL REPORT

AR Date: July 13, 2005
2002

VTR Date: 

Section One:
Checklist of required elements

1. Statistical Report X Included
2. Response to deficiencies identified in the most recent VTR X Included
3. Changes in the accredited program X Included

Section Two (A):
Assessment of response to deficiencies

Condition 9, Financial Resources

D Satisfied, no further reporting required /
Further progress needed

Continue reporting on the impact of improvements in the financial situation in the Spokane IOI program and the Pullman budget.

Criterion 12.5, Fundamental Design Skills

D Satisfied, no further reporting required /
Further progress needed

With improved consistency in coordination and evaluation of beginning studios, to complete reporting on this criterion, provide in the next annual report a description of what is described as fundamental design skills for these studios.

Criterion 12.11, Non-Western Traditions

D Satisfied, no further reporting required /
Further progress needed

With expansion of non-western traditions covered in courses, to complete reporting on this criterion, provide in the next annual report syllabi with relevant portions highlighted.

Criterion 12.14, Accessibility

D Satisfied, no further reporting required /
Further progress needed

To complete reporting on this criterion, provide in the next annual report studio syllabi with portions relevant to accessibility highlighted.
Although an area may be marked "satisfied, no further reporting required," the next visiting team may include in its report its own assessment of the program's response to the deficiency.
Section Two (B):  
Assessment of response to causes of concern

No causes of concern were discussed in the annual report.

Section Three:  
Changes to the accredited program

The annual report notes a new requirement for students to purchase computers, summer studio classes and planned modifications next year.

Although an area may be marked "satisfied, no further reporting required," the next visiting team may include in its report its own assessment of the program's response to the deficiency.
The following reflect changes that the school has implemented relative to deficiencies that were cited in our 2002 Visiting Team Report.

0 Financial Resources: Stated Deficiency from 2002 VTR:

"There are various budget concerns and deficiencies in the Spokane ID/ program. Resources for faculty development are inadequate. Students need computers and software equivalent to those provided for students in Pullman. Student enrichment through a consistent and vital lecture series is minimal. Resources need to be provided to the Spokane campus library for the purchase of up to date architecture periodicals. A clear policy and vision for utilizing development funds earmarked for the architecture program needs to be articulated.

Also the operational budget for the SOACM is not comparable to the resources provided to departments of similar size in the college. The program is twice the size of the Civil Engineering and receives almost $40,000 less for operation. It is about the same size as the Mechanical engineering Department and receives almost $37,000 less for operation. The program is approximately $25,000 in the red every year."

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In terms of computers the Spokane campus has recently purchased and upgraded new computers and added new software in both the computer lab and studios. Students have access to all of the AutoDesk software as well as graphic software, plotters and printers. This provides Spokane students with all of the technology available in Pullman.

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School of Architecture and Construction Management
Cash Flow History

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<td>Revenues</td>
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12.5. Fundamental Design Skills: Stated Deficiencies from 2002 VTR
“There does not seem to be a strong conception of or consistent commitment to teaching fundamental design principles. The core values that students receive in their first design studios seem to vary widely and depend primarily on the desires and approaches of individual faculty members.”

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In the second year studios the design level coordinator is responsible for overseeing and managing consistency in terms of project type and emphasis. Our Areas of Knowledge Matrix identifies six areas of knowledge that provide a foundation for all studios. In the fall semester of the second year the focus is on abstract and critical thinking. In particular students will be asked to interpret and evaluate works of art and or literature and utilize these works as sources of inspiration for architecture. At the same time students are refining skills in terms of drawings and models.

In the spring semester students begin to focus on issues of structure, materials and context. This corresponds with the materials course that is taught in the second year and sets the stage for structures courses that begin in the third year. The expectation is that students at the end of the second year will have developed proficiencies in the six areas identified for second year students.

In terms of assessment, at the end of each semester we have an all school exhibition and review of studio work. The faculty reviews all studio work and fills out an assessment form (enclosed). This form is then used to identify deficiencies in studios that are then discussed with individual faculty.

12.11. Non Western Traditions: Stated Deficiencies from 2002 VTR

There was very little evidence of this awareness. However, Professor Samizay's studio course on Afghanistan and Professor Wang's proposed summer foreign travel China provide potential models for wide adoption in the curriculum. Discussion seems to be absent in history courses (although included in syllabus) and infrequent in design and theory courses.

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history courses. These changes are the direct result of the hiring of Professor Phil Gruen who coordinates our history sequence. Professor Gruen understands the need to expose students to this material and has worked to integrate this material into his courses (See enclosed syllabi and writing assignment).

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Professor Samizay has spent the past year as well as the current year on leave without pay working in Afghanistan. He is designing and construction new public as well as civic buildings throughout the country. Once stability is restored to this country we are expecting that this will lead to our students being able to travel and study in Afghanistan.

Other events that reinforce non western traditions are as follows:

- Professors Rahmani and Kazimee published a new book on the traditional values of architecture in Islamic culture. This book provides a great resource in non western architecture.

- This past year the School co sponsored an exhibition with the Museum of Fine Arts on Afghanistan which attracted faculty, students and administrators throughout the university and community.

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This criteria is not met as it is not explicitly shown at any level in the design work.

Changes since last visit:
The issue of accessibility continues to be integrated into the studio as well as required courses. Our comprehensive studio evaluation form identifies accessibility as one of our evaluation criteria. Studio syllabi and design reviews continue to raise student awareness of this issue. Also accessibility issues have now been introduced into our Environmental controls courses during the segment on conveying systems.
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Changes that are planned for the architecture program:

- Requirement to purchase computers: this past spring the university approved our request to have students purchase lap top computers once they are certified into the second year. This change will be enacted starting in the fall of 2006.
- This next year we will be making plans to begin offering studio classes during the summer. These studios will be off campus located in architect offices in Portland and Seattle and will be open to students from other universities.
- Over the next year will be making updates and modifications to our curriculum relative to changes in NAAB accreditation criteria.
NAAB RESPONSE TO WASHINGTON STATE UNIVERSITY
2006 ANNUAL REPORT

Rec’d Date: 5/1/2006
Date of Visit: N/A

1. Statistical Report

Section One:
Checklist of required elements

<table>
<thead>
<tr>
<th>I'Included</th>
<th>Not Included</th>
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2. Response to deficiencies identified in the most recent APR
3. Causes of Concern
4. Changes in the accredited program

Section Two (A):
Assessment of response to deficiencies

Condition 9.0: Financial Resources
Satisfied, no further reporting required

Criterion 12.5: Fundamental Design Skills
Continue to report on the outcomes of your assessment of the semester studio review, and delineate how these outcomes have been, or, are being used to resolve this deficiency, especially in light of a new first year studios coordinator.

Criterion 12.11: Non-Western Traditions
Show evidence in your 2007 APR, and at next visit.

Criterion 12.14: Accessibility
Show evidence in your 2007 APR, and at next visit.

Section Two (B):
Assessment of response to causes of concern

None identified.

Section Three:
Changes to the accredited program

Be prepared to show evidence of how the 2.5 and 3.5 year options will integrate with the existing accredited programs in your 2007 APR, and at next visit.

Although an area may be marked "satisfied, no further reporting required," the next visiting team may include in its report its own assessment of the program's response to the deficiency.
Changes since 2004-2005 Academic year:

Changes identified in last years report continue to be operational and equity in terms of budget issues between Pullman and Spokane have been remedied. In terms of computers and access to digital media the Spokane campus has invested in new computers for students. This is part of the new facilities on the south side of campus for graduate students in architecture and interior design. The new facilities provide studio, classroom and meeting areas for graduate students.

The Design Institute continued with the second year of the "Fall Design Week." This year the focus of the symposium was on health care and Health care environments. This symposium/conference focused on paper sessions as well as renowned speakers in the area of health care environments.

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Changes since 2004 - 2005 Academic year:
We continue to refine and make progress relative to our studios in the first two years. With the retirement of Professor Mike Kevin Professor Taiji Miyasaka will be coordinating all of our first year studios. The change over last year is that starting in fall 2006 Professor Miyasaka will coordinate both the fall and spring studios. This will provide enhanced consistency between semesters and will increase the flow of material between each semester. In addition Professor Miyasaka has been provided some release time in the fall semester so that he can have an active engagement in the first year studios taught by our graduate students.

In addition to the changes that were identified for second year in last year’s report all second year students will be required to purchase laptop computers for the second year for fall 2006. As such we have reconfigured some of the content in the studio to incorporate and integrate the computers in the studio. We have added one credit to the second year studios and our intent is to use the computers to support the design
objectives for the course. In the fall semester students will be integrating sketch up into their studio projects and in the spring we will be integrating a second modeling software.

We continue to implement our semester studio review where all student work in the school is displayed and reviewed by all faculty at the end of each semester.

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Changes since 2004-2005 Academic year:
In addition to changes noted in last years report Professor David Wang led a study tour to China during the winter break of 2005. This was a two week trip and the students visited both historical and contemporary sites in China. Presently Professor Wang is planning for another trip to China this next fall semester.

Professor Samizay continues his work in Afghanistan and is working on providing internship opportunities for students. Our expectation is that once the environment is safe our students will be participating in activities in Afghanistan on a regular basis.

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This criteria is not met as it is not explicitly shown at any level in the design work.

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Changes that are planned for the architecture program:

- This next fall semester we will be offering an elective course to our students on sustainability. The focus of this course will be to explore issues of environment and to prepare students to become LEED certified.
- During the summer of 2006 we will be offering a design studio at the offices of Miller Hull Architects in Seattle. This will be a six week on site course exploring issues of urbanism and Seattle.
- This past spring semester the school sponsored a series of three symposiums focused on integrated practice. The three symposia were all day events. Over the course of the three symposiums over 30 individuals from the profession including national leaders in integrated practice in architecture and construction management came to campus for discussions, presentations and panels. We will be continuing with this series in the fall semester.
- Over the next year will be making updates and modifications to our curriculum relative to changes in NAAB accreditation criteria in preparation for our next accreditation visit.
- We are expanding our Master of Architecture program to include 2.5 year students. For the fall semester we will have one cohort of 2.5 year students in the program at the Spokane campus. Over the next several years we will also be developing our 3.5 year option for students with degrees in disciplines other than architecture.
4.7 School Catalog
Appendices

A Required Text for Catalogs and Promotional Materials
B Guidelines for Writing an Informational Resources Self-Assessment
C Information Resources Statistics Report Form
D School Information
Appendix A. Required Text for Catalogs and Promotional Materials

The following statement must be included, in its entirety, in the catalogs and promotional materials of all accredited programs.

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Master's degree programs may consist of a preprofessional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

In addition to the previous text, all programs that have been granted candidacy status must include the following in its entirety:

The NAAB grants candidacy status to new programs that have developed viable plans for achieving initial accreditation. Candidacy status indicates that a program should be accredited within 6 years of achieving candidacy, if its plan is properly implemented.
Appendix B. Guidelines for Writing the Information Resources Assessment

Your assessment should take the form of a narrative description of the full range of library and information resources available to the architecture program. Collections and services, as well as personnel, physical facilities, and financial support should be assessed with constant reference to the architecture program's stated goals. Collections administered separately from the library should be included in this report or in a separate report if a joint report is not appropriate or practical. Special attention should be drawn to the status of concerns identified in previous accreditation reports and to any progress made toward remedying these concerns. Refer to data in the completed C Statistics Report when appropriate.

Context and Institutional Relationships

1. How do the library and information resource collections relate to the architecture program and to other libraries and collections on campus or in the community? How are these collections administered? Where are the library or information resource collections physically located? Are the visual resources or other supporting collections in the library, or a separate collection?

If you discuss peer comparisons in the assessment of your collections, please

2. describe the method used to determine peer institutions. If appropriate, note current versus aspirational peers.

Library and Information Resource Collections

1. Goals: Describe the ability of the library and other information resource collections (print, non-print, and electronic) to support the curricular and research goals of the architecture program. Are there written policy statements that describe the mission, goals and objectives of the library collections and services? Describe these goals and realistic plans to achieve them. Identify problem areas and strategies for resolving them. Who has input into and authority for decisions about book, visual resources, electronic resources, and other non-book selections?

2. Collection Description: Address particular areas of collection strengths and weaknesses. Consider the balance of material types as well as the current and retrospective breadth, scope, depth, and complexity of subjects related to the practice, history, theory, and criticism of architecture. Are the collections adequate to support the curriculum, the number of students, and the level of faculty research, instruction, and professional development specified in institutional goals?

a. Books: Are the book collections sufficient in coverage (current and retrospective) as well as in scope? Are they purchased in a timely fashion? Are reference publications readily available and up-to-date? Are they available in appropriate formats?

b. Serials: Are the serial collections sufficient in coverage (current and retrospective) as well as in scope? Are serial sets complete, and available in appropriate formats? What periodical indexes are available for access to the
c. collection? What percentage of periodicals from the Association of Architecture School Librarians Core List is currently being received?

d. Visual and non-book resources: Are these materials (slides, videos, drawings, photos, models, material samples, electronic databases, digital image files, etc.) sufficient in coverage and scope? Are they acquired or produced in a timely fashion? Are they available in appropriate formats?

e. Conservation and preservation: Is there adequate physical care of the collection through appropriate housing, storage, binding or mounting, mending, encapsulation, and other means? Are there any particular concerns about the physical condition of collections?

Services

knowledgeable, professional, and personal guidance in the use of library materials?

1. Reference: Describe reference services, goals, and policies. Does the staff provide

Are printed and web-based reference guides or pathfinders readily available?

2. Information Literacy: Describe the instructional services provided by library and information staff (such as orientations, instruction in information skills and research methods, etc.). Are electronic information and bibliographic instruction services incorporated into the architecture curriculum?

3. Current awareness: Does the library provide current awareness services, such as selective dissemination of information, preparation and distribution of new book and journal lists, notices and announcements, displays or exhibits? Does the library or information resource collection maintain a website?

4. Access to collections:

a. Does the organization and cataloging of the collections provide adequate physical, bibliographical, and intellectual access to information? Are collections organized and cataloged using national standards? Are the materials cataloged and made available within a reasonable time of receipt?

b. Are appropriate written circulation policies in place? Are the hours of operation and reference service convenient for faculty and students and adequate to meet needs? Is regular, timely access to collections in remote storage facilities provided? Do students have ready access to course reserve or other intensively used materials?

c. Are reserves available electronically? Is there remote access to databases? Are there enough network ports to handle the traffic? Is it difficult to log on to databases when access is based on the number of simultaneous users?

5. Cooperative agreements: Describe formal inter-library loan and other cooperative agreements that augment or extend access to materials locally, regionally, and nationally.
Staff

1. Structure: What is the administrative structure within the library and/or information resource collection? Describe the status of the librarians and/or visual resources professionals within the program and the institutional administrative structure. Is the staff of the library or information resource collection considered part of the architecture program's educational team?

2. Professional expertise: Describe the educational and work history of the librarians and/or visual resources professionals. Are there up-to-date written position descriptions? Are there sufficient librarians and visual resources professionals with graduate degrees in library and information science, and with subject expertise in architecture or closely related fields?

3. Support staff: What academic preparation and job training is required of paraprofessionals? Are there up-to-date written position descriptions? Does the library have sufficient paraprofessional, clerical, and student staff to successfully manage the collections and services? Compensation: Are staff salaries and benefits commensurate with those of others in the institution with similar training and experience? Is funding available for staff professional development and continuing education (conferences, workshops, and courses)?

Facilities

1. Space: Is the location of the library or information resource collection convenient to the faculty and students? Is there an attractive, welcoming environment for users and staff? Are facilities provided for group as well as individual study? Is there adequate space for all activities and services, for collections, and for the staff? If not, are there realistic plans to relieve or compensate for these inadequacies? Are the library, resource collections, and other information resource centers barrier-free?

collections? Is there sufficient lighting, electrical service, heating, and visual

2. Environmental factors and security: Are there proper environmental controls for the library ventilation? Is there adequate protection from theft, fire, and natural hazards for users, staff, and materials? Are written emergency procedures and disaster plans in place?

3. Equipment: Are there sufficient and appropriate storage and housing systems for all types of library materials? Is there sufficient equipment (photocopiers, computer workstations, printers, scanners, slide viewers, projectors, microfilm reader-printers, etc.) for users and staff? Is there reliable access to the Internet?

Budget, Administration, and Operations

1. Funds: Describe the source of funding (such as institutional allocations,
endowments, gifts, etc.). Are funds sufficient to maintain the collections and services? Does the librarian have adequate input into, or authority for, budget development and expenditures?
2. Efficiency of operations and services: Does the library or resource collection function smoothly and systematically? Describe any operations or services not yet mentioned.

3. Participation of faculty and students: Is there a library or resource collection advisory committee or other means for user participation in the development and evaluation of policies, services, resources and programs?

Bibliographic Resources

of Architecture School Librarians. The following publications are recommended as guides for assessment, evaluation, and performance measurement:

Includes a useful glossary and bibliography


Exhaustive standards tested and developed by ARLIS/NA for physical facilities for art libraries and visual resource collections, all applicable to architecture libraries

Recommended standards for use in self-study processes and accreditation

Excellent guide to self-study for academic institutions, including libraries

Covers staffing qualifications as well as the future of the profession in the face of new technology

Concise guide to evaluation methods with pros and cons of each. Extensive bibliography


Historians Education Committee, Philadelphia, Pennsylvania.
Standards for libraries that serve architecture history programs

Procedures and policies for allocating budgets, preparing collection development policy statements,
and evaluating collections


Also appropriate for architecture libraries


Staff. (September 1989). Standards for University Libraries: Evaluation of


A template for assessment, setting goals, and determining staffing needs

Includes staffing and collection development standards for small, medium, and large academic, public, and museum art libraries; applicable to architecture libraries


Presents policy statements from academic, architecture, museum, and art school libraries and visual collections. Includes tabular comparative analyses and a bibliography
Appendix C. Statistics Report

<table>
<thead>
<tr>
<th>Types of Collections</th>
<th>Number of Volumes or Linear Feet</th>
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<th>Budget Last Year</th>
<th>Budget This Year</th>
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<td>Books classed in LC-NA or Dewey 720's</td>
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<td>Other Books</td>
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Staffing

Types of Positions

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<td>Staffing</td>
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<td>Librarians / VR Professionals</td>
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<td>Paraprofessionals</td>
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<td>Clerks</td>
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<td>Student Assistants</td>
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<td>Volunteers</td>
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<td>Other (specify)</td>
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STUDENT EXIT SURVEY QUESTIONNAIRE
ARCHITECTURE

The School requests that all architecture students graduating from the School complete the following questionnaire. We appreciate your time in completing this form, as it is very important that we receive your feedback as a tool to assess the overall program.

Name: ___________________________ Phone#: ___________________________ Date: ___________________________

Email: ___________________________ City: __________ State: __________

Address:_________________________ Street: ___________________________

1. At what time in your education did you decide to pursue architecture as a career?

2. Honors or student positions held while attending WSU:

3. Please provide comments pertaining to:
   Advising ___________________________
   ___________________________________
   ___________________________________
   ___________________________________

   Faculty: ___________________________
   ___________________________________

   Placement Assistance
   ___________________________________
   ___________________________________
4. Please list summer, part-time, and other employment while attending WSU. Most current first.

<table>
<thead>
<tr>
<th>Date</th>
<th>Employer</th>
<th>Duties</th>
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5. Please list employment interviews and offers for positions after graduation:

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<tr>
<th>Interview On Campus</th>
<th>Off Campus</th>
<th>Company Address</th>
<th>Position Offered?</th>
<th>Salary</th>
<th>Benefits Yes/No</th>
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</table>

6. Are you actively seeking employment? ______________

7. If you have accepted a offer of employment please complete the following:

Company:

Company Address: ____________________________

Phone: ______________

Job Title: ____________________________

Starting Salary: ______________

8. What type of work does this company do? Check all that apply.

- AE Firm
- Development
- Design Build
- Other (explain)

Approximate yearly salary: ________________ Benefits: ________________
How did you learn about this company?
- University Placement
- School
- Alumni
- On your own

Please complete the remaining portion of this survey providing detailed and meaningful information that may be used in the overall evaluation and assessment of the architecture program. Your comments, concerns and recommendations are important and will be used to assess future changes.

Program Evaluation

1. Considering all the major required classes you took at WSU, which classes stand out as especially noteworthy and why?

________________________________________________________________________________________
________________________________________________________________________________________
If so, please list them...

2. Are there classes in your WSU experience that seem mostly irrelevant or much less useful?

________________________________________________________________________________________
________________________________________________________________________________________

3. Suggestions for improving the courses of least value.

________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________

4. What element or aspect of your major was the most important to you and why?

________________________________________________________________________________________

5. What element or aspect of your major was the greatest disappointment to you?

________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________

6. Suggestions for improving those aspects of your education that was disappointing.

________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
7. Looking back at your total education, if you were starting over, what would be the most important changes you would make?

______________________________________________________________

Considering that your education is to prepare you for an entry level management position related to architecture, how do you rate yourself concerning the following? Circle the appropriate number. Use a scale of 1 to 5 as follows:

1 Disagree  2 Disagree  3 Mixed Feelings  4 Agree  5 Agree Strongly

2 3 4 5 The architecture program of study has provided good preparation for my professional work.

8. 1

9. 2 3 4 5 I have a comprehensive understanding of design theory.

10. 1 2 3 4 5 I have confidence related to my knowledge in architectural technology and construction.

11. 1 2 3 4 5 I am confident in my understanding of construction methods and operations.

12. 2 3 4 5 I am confident in my understanding of mechanical and structural systems.

13. 1 2 3 4 5 I am confident in my understanding of computers.

14. 1 2 3 4 5 I have gained an understanding of professional practice and ethics.

15. 1 2 3 4 5 I am confident in my understanding of the history of architecture.

16. 1 2 3 4 5 I have gained an understanding to write critically regarding architecture.

17. 1 2 3 4 5 I am confident in my understanding of design methodologies.

18. 1 2 3 4 5 I am confident in my understanding of materials and the construction process.

19. 1 2 3 4 5 I have gained an understanding of architecture and the urban environment.

20. Would you advise a friend with similar interests to select the major you did? [ ] yes [ ] no

21. If you were starting over would you select the same major? [ ] yes [ ] no [ ] undecided

22. Other comments:
Washington State University
School of Architecture and Construction Management

A+ CM Integrated Education
Introduction

A+ CM: Integrated Education at WSU:

The School of Architecture and Construction Management at Washington State University has embarked upon an integrated curriculum that seeks to share and integrate discipline specific knowledge between architecture and construction management. To that end the mission of the Integrated Education series can be characterized as follows:

To promote integrated education between architecture and construction management through innovation in academic initiatives and to foster enhanced communication between the professions of architecture, construction and educational institutions.

Integrated education at WSU occurs through three distinct curriculums.
Integrated Education
WSW: A+ CM

School of Architecture and Construction Management

First Curriculum

- Discipline specific Curriculum.
- CM curriculum
  - Methods
  - Costs
  - Scheduling
  - ETC.
- Arch Curriculum
  - Design
  - Structures
  - History
  - Theory
  - Technology
- General Education

Second Curriculum

- A+ CM integrated Coursework.
  - Structures
  - Environmental Controls
  - Materials
  - Costs
  - Design studio

Third Curriculum

- A+ CM Integrated Education Symposium
  - University+ Profession
- Spring 06 Three part Symposium
  - Leadership
  - Design Quality and Communication
  - Building Information
  - Modeling
- Spring 07
  - Interactive learning.
The First Curriculum

**The filist Curriculum:** The first curriculum focuses upon the teaching of discipline specific requirements. These are the areas of knowledge, skill sets and tools necessary for students to function and advance the professions of architecture and construction management.
The Second Curriculum

The second Curriculum: The second curriculum consist of a series of shared required courses between architecture and construction management students. In these courses, students from each discipline work in collaborative environments for their mutual benefit. In addition the second curriculum encompasses special projects such as solar decathlon and the ASC Reno Competition.

Integrated Courses:

- Three structures courses.
- Two Environmental courses.
- One materials course.
- First year drawing course
- Segment of Third year studio focusing upon cost and specifications with arch and CM students.
- Experimental Integrated Design studio with four CM and arch students spring 07.
- Architectural segments in CSTM 102 and CSTM 370 estimating.

Minor in CM
Minor in Architecture.
Arch and CM design build team at ASC Reno Competition
The Third Curriculum: The third curriculum is a collaborative partnership between the school and professions of architecture and construction. In this curriculum the school sponsors symposiums that are developed and delivered by the school and leaders from the profession. During the spring of 2006 the school sponsored three symposiums where over 30 professionals participated and conducted seminars on topics such as leadership and team building, design and communication and delivery systems. The third curriculum will continue during the spring of 2007 with a symposium on February 23, 2007. This symposium will be a hands on problem solving symposium where architecture and CM students will be working together on specific problem types.
Third Curriculum
Practice Integration

A + CM Integrated Education Symposium Spring 2006

Schedule:

10:30 a.m. - Noon: Integrated Education Overview  
CUB Auditorium

1:00 p.m. - 4:00 p.m. Interactive Sessions  
CUB Auditorium

1:10 p.m. - 1:50 p.m.  
- Team Building and Leadership  
- Owner Relationships  
- Pre Design Services  
- Todd 216
- Todd 320
- Todd 334

2:10 p.m. - 2:50 p.m.  
- Finance and Pre Design Costing  
- A + CM Marketing  
- Team Building and Leadership  
- Todd 320
- Todd 334
- Todd 216

3:10 p.m. - 3:50 p.m.  
- Owner Relationships  
- Pre Design Services  
- Finance and Pre Design Costing  
- A + CM Marketing  
- Todd 420
- Todd 217
- Todd 320
- Todd 334

4:00 p.m. - 4:15 p.m.  
CUB Auditorium  
Lobby

4:20 p.m. Panel Discussion: Best Practices for Team  
Building and Leadership  
CUB Auditorium
A + CM Integrated Education Symposium
Friday February 17, 2006

Schedule:

10:30 a.m. - Noon: Design Documentation and Communication  CUB Auditorium

1:00 p.m. - 4:00 p.m. Interactive Sessions
1:10 p.m. - 2:00 p.m.
  Maintaining Design Quality and Communication  CUB Auditorium
  Costs, Specifications and Scheduling  Todd 216

2:10 p.m. - 3:00 p.m.
  Energy and LEED  Todd 125
  A + CM +Owner + Consultant Communications  Todd 216
  Costs, Specifications and Scheduling  Todd 430

3:10 p.m. - 4:00 p.m.
  Maintaining Design quality and Constructability  Todd 125
  Energy and LEED  Todd 216
  A + CM +Owner + Consultant Communications  Todd 430

4:00 p.m. - 4:15 p.m. Snacks:  CUB Auditorium Lobby

4:20 p.m. Panel Discussion:  CUB Auditorium
School of Architecture and Construction Management
A + CM Integrated Education Symposium III
March 24, 2006

Design and Delivery Systems

Schedule

10:30-11:30
CUB Auditorium

Innovation in Design and Innovation in Construction
Ayod Rahmani: Design Ideas and the Seattle Public Library
Dole Stenning: Building Information Modeling (BIM) and the construction of the Seattle library.

1:10-2:00
CUB Auditorium

BIM on the construction site
Dale Stenning: Hoffman Construction
Michael Harder: Mortenson Construction

Todd 215

What is GCCM and CM at risk?
Lee Kilcup: DIY Construction
Jeff Fisher: Skanska Construction

2:10-3:00
Todd 125

Envisioning the future of architecture and construction.
Bruce Blackmer: Northwest Architecture Co.

CUB Auditorium

BIM on the construction site
Dole Stenning: Hoffman Construction
Michael Harder: Mortenson construction

3:00-3:50
Todd 216

What is GCCM and CM at risk?
Lee Kilcup: DIY Construction
Jeff Fisher: Skanska Construction

Todd 125

Envisioning the future of architecture and construction.
Bruce Blackmer: Northwest Architecture Co.

4:15-5:00
CUB Auditorium

Panel Discussion
Integrated Education Case Study

Third and fourth year arch and CM students divided into groups of ten (5 arch, 5 CM).

15 teams total, each five teams work on the following problems.
  Design and Constructability.
  Design and costs.
  Material craft and quality control.

Format:
Each team assigned a faculty and professional facilitator.
Length of problem: 5 – 6 hours
Each team presents to panel (15 min. max) at end of the day.
WSU Institute for Sustainable Design

A collaboration between Architecture, Construction Management, Civil Engineering and the WMEL

Goal:
The Institute focuses upon delivering to students, public, contractors and industry, critical knowledge, research, design, and product development that will provide green designs and products that are affordable and aesthetically pleasing.

The Institute core competencies at WSU include:
- Renewable materials discovery and development (Wood Materials & Engineering Laboratory)
- Solar and energy technology (Materials Science, Architecture, Extension Energy Program)
- Architectural design and building systems development (Architecture and Construction Management, Civil Engineering, WMEL)
- Design, codes and standards (Civil Engineering, Architecture, WMEL).
Institute for Sustainable Design

The Economy of Green

Undergraduate and graduate education
Community Education and Outreach
Research/Materials Development
Economic development
of this amount.

What the fees cover: The courses fees cover airfare, accommodations and ground transportation (excluding public transportation.) Course fees do not cover other on site or in transit costs such as meals, entrance fees to museums or tours that faculty deem significant to the experience of the study tour. Students are encouraged to seek outside funding such as grants to help offset additional costs. In addition, students receiving financial aid are eligible to receive additional funding. Students will be provided with a budget breakdown prior to the trip with projected out of pocket expenses. Student fees also cover airfare and accommodations for faculty but not faculty per diem.

Other issues governing the study tour include the following:

- Tours will range from three to five days and generally occur from a Wednesday through Sunday.
- All sections within a given year may go to the same destination or may choose different locations.
- Graduate student study tours will occur during the spring semester of each year.

The School of Architecture and Construction Management at Washington State University is committed to providing our community of students with an exceptional educational experience. Our student population comes from diverse social, economic, and ethnic backgrounds from throughout the United States and many foreign countries. As part of our commitment to our students, the School’s policies and procedures has been developed and approved by the faculty.

The following policies are specific to the School. As such, they are supplemental to other policies and procedures of the College and the University. University policies are outlined in the University’s General Catalog. Students should become familiar with the General Catalog for those issues which the School does not address specifically.

Fourth year study tours in Spokane will occur during the spring semester. Study program content and location are at the discretion of the studio faculty.
• The study tour may be included as part of the studio design project for the semester.

Code of Conduct: Study tours are an integral part of the educational experience for students in the School. The study tour provides opportunities for all students to study and gain first hand experience in important architectural and construction projects. The study tours provide opportunities to understand design intentions, construction methods and materials as well as the role of architecture and construction as cultural phenomena. As such the following policies have been established as expectations for student behavior.

• The required study tours, in the third and fourth year as well as the graduate should be viewed in the same manner as other class activities. The study program are an integral component of a comprehensive education. As such, these activities tour is a graded assignment in the same way that other assignments are graded for the studio.

• Students may expect that the itinerary will encompass activities that will be of full day duration.

• Students are expected to participate in all activities as established by the faculty leader.

• Students are expected to behave in a professional manner throughout the tour. It is important to understand that you are representing the school and university, and standards of professional conduct are mandatory. These include: treating others with respect, using appropriate language, politeness and being prompt in terms of time schedules.

• Faculty may establish assignments such as on site research, conceptual design, analysis of projects and/or sketching as a requirement of the study tour. All assignments related to the study tour will be graded and will be integrated into the guidelines, policies and expectations for WSU students.

Also included in this document is an accreditation statement from the National Architectural Accrediting Board (NAAB). Accreditation procedures for architecture require that all students must receive a copy of this information.

If at any time you have questions or concerns about the contents of these policies please feel free to contact any faculty or staff member or the Director of the School.

Greg Kessler

Professor and Director
this chapter provides procedures for dealing with academic dishonesty by individual students. Part I of this chapter provides procedures for dealing with assisting in or encouragement of academic dishonesty by student organizations.

I. A student organization's assistance in, or encouragement of academic dishonesty as defined in subsection 2 of this section is prohibited. Part III of organizations.

2. Academic dishonesty includes cheating, plagiarism, and fabrication in the process of completing academic work. The University expects that student organizations will accept these standards and that their members will conduct themselves as responsible members of the academic community. These standards should be interpreted by students as general notice of prohibited conduct. They should be read broadly, and are not designed to define misconduct in exhaustive forms.

Please see www.conduct.wsu.edu/academicIntegrity.asp for more information. In addition, please review Standards of Conduct for Students at: http://www.conduct.wsu.edu/docs/StandardsOfConductForStudents.pdf

Policies and Procedures for Students in Model and Wood Shops
Room 325 Carpenter Hall

The following policies are established to govern the use and safety of all shop facilities within the School of Architecture and Construction Management. All students are expected to follow these policies with no exceptions. Failure to follow all procedures will result in losing privileges for shop use.

Safety:
- All students will be required to participate in safety training under the direction of Norm Martel. By signing this form you acknowledge that you have attended all required safety training.

Policy on Indoor Air Quality (IAQ)

The School of Architecture & Construction Management strives for the best possible IAQ for all users of Carpenter Hall. In order to achieve this policy, the School will seek to raise awareness of the importance of IAQ elimination, such as food wrappers, pop cans etc. should be disposed of promptly.
- Keep in mind that seminar rooms located adjacent to the studios are intended to
rsuit of knowledge and a desire to learn the profession of architecture and construction management. Adherence to the above will facilitate overall access and opportunity for success in the school.

**Students with Disabilities**

Faculty are committed to providing assistance to help students with disabilities be successful in school courses. Reasonable accommodations are available for students with a documented disability. Please visit the Disability Resource Center (DRC) during the first two weeks of every semester to seek information or to qualify for accommodations. All accommodations MUST be approved through the DRC (Admin Annex Bldg., room 205). Call (509)-335-3417 to make an appointment with a disability counselor.

- Safety in the shop is the responsibility of all students, and will ultimately yield better work.
- All equipment and tools, which become unsafe must be taken out of use immediately.
- All materials must be kept off the floor at the end of each work period. Sawdust must be cleaned away.
- No headphones, food, drinks are allowed in the shop.
- Students may not operate tools unless they are tied back.

**Procedures:**

- Students may not use or bring tools, including power and hand tools. These may include, such as matts and exact knife knives.
- Students must clean the area where they have been using the shop.
- Broken tools or materials that need to be repaired must be reported to the TA.
- Students must always work in a safe, orderly manner.

Non-conformance with the above will result in termination of shop privileges.

**Release of Liability Form:**

In order to gain admission into the shop, students must sign the "Release of Liability" form, there is a form available through the A+CM office.

Fom me available through the A+CM office.