Objectives
As a broad introduction to architecture, this course will stress the diversity of architectural discourse historically and will present the principle works and issues of the architectural profession today. The course serves as both a required foundation for architectural design courses and a general introduction to architectural thought for Graduate Students new to the discipline. Architecture is a notoriously vast knowledge base with many areas of consensus and a few areas of serious contention. This course will present a generalized framework of that architectural knowledge base and help to understand works of architecture and design in the larger cultures they serve.

Course Structure
The course is organized around two weekly lectures and weekly readings focusing on specific topics. Students will be required to demonstrate an understanding of each week's lectures and readings in a short quiz usually given at the beginning of class on Tuesdays. Two one-hour exams will also be required as shown on the attached schedule.

Quizzes
There will be brief (ten minute) quizzes given at the beginning of class on twelve of the Tuesday classes throughout the semester. The quizzes will cover the material that has been presented in class since the previous quiz. The best ten quiz scores of the twelve given will be counted toward the final course grade. The two lowest quiz scores will be dropped. Quizzes will have multiple choice and short answer questions, as well as "sketch" questions. Students are advised to keep their graded and returned quizzes until after final course grades are received. There are no "make-up quizzes"—a missed quiz, for any reason, will be a dropped score. Each quiz (of the ten best) is worth 5% of the semester grade. Together, all quizzes total 50% of the semester grade. Students missing more than two quizzes for Medical reasons will be accommodated in accordance with university policies governing such matters.

Exams
There will be two scheduled one hour examinations, each accounting for 25% of the semester's grade. Each exam will include some image identification questions, multiple choice questions, short answer questions, and "sketch" questions. Each exam covers approximately one half of the course material. The second (Final) exam will be cumulative, but will emphasize material from the second half of the course. The Final Exam must be taken on Friday, December 16th, 2016, from 10:00AM to 12:00PM as officially scheduled by the University.

Sketching
Developing an understanding of Architecture is, in part, a task requiring some visual analysis and graphic understanding. Therefore, throughout the course, small sketches may be required on quizzes and tests. Students without a background in this form of communication need not be concerned that they are disadvantaged in the course, expectations for the quality of the sketches is not high and any reasonable effort will suffice. Brief suggestions about this form of communication will be offered throughout the semester, but the course should not be understood as a "drawing" class or as "studio art" in any way.

Major, Minor, Non-Major
This course is open to all Tulane students. It is a required course for Architecture Majors and Minors and may fulfill distribution requirements for other major and minor areas of study.

Lecture Course Etiquette
Class will begin at the scheduled time (within a minute or two) and there will be time to consider the focus of the lecture and its relationship to previous material in the class. Please feel free to bring a drink to class, but please don't eat during the class period. The lectures will often run the full hour and fifteen minutes scheduled although there should be time for questions and brief discussion near the end of each class session. Questions at the beginning and end of each lecture are welcomed and encouraged. Questions asked during the lecture should pertain to clarification of the topic under discussion. Cell phones or their ring tones should be turned off during class to avoid disrupting the lecture. Please do not "text message" or "tweet" during class.

Meeting Time
11:00AM—12:15PM Tuesday & Thursday
Room 204, Richardson Memorial Hall.

Office Hours
Monday & Wednesday 1:00PM to 3:00PM (appointment is best)
Office #411 | sbernhard@tulane.edu

Grading
Quizzes: best 10 of 12 @ 5% each 50%
Mid-Term Exam 25%
Final Exam 25%
Grades, Guides & Assignments available on "Canvas"

Recommended Text
World Architecture; A Cross-Cultural History
Richard Ingersoll and Spiro Kostof
**Introduction to Architecture**  
AHST 1110-01 / crn 36816 / Fall 2016

**Associate Professor**  
Scott Bernhard

**Schedule**  
(lecture dates and study guides may vary slightly—but exam and quiz dates will not change)

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Lecture</th>
<th>Reading Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tue.</td>
<td>08.30</td>
<td>Lecture: Introduction</td>
<td>Course handouts</td>
</tr>
<tr>
<td>Thu.</td>
<td>09.01</td>
<td>Lecture: Architecture &amp; Urbanism in Ancient Greece</td>
<td>see Study Guide #1 for readings</td>
</tr>
<tr>
<td>Tue.</td>
<td>09.06</td>
<td>Quiz #1 / Lecture: Architecture &amp; Urbanism in Ancient Rome</td>
<td>see Study Guide #2 for readings</td>
</tr>
<tr>
<td>Thu.</td>
<td>09.08</td>
<td>Lecture: After Rome; Byzantine, Gothic</td>
<td>see Study Guide #3 for readings</td>
</tr>
<tr>
<td>Tue.</td>
<td>09.13</td>
<td>Quiz #2 / Lecture: Structure &amp; Italian Renaissance I</td>
<td>see Study Guide #4 for readings</td>
</tr>
<tr>
<td>Thu.</td>
<td>09.15</td>
<td>Lecture: Language &amp; Italian Renaissance II</td>
<td>see Study Guide #5 for readings</td>
</tr>
<tr>
<td>Tue.</td>
<td>09.20</td>
<td>Quiz #3 / Lecture: Baroque Architecture &amp; Urbanism in Rome</td>
<td>see Study Guide #6 for readings</td>
</tr>
<tr>
<td>Thu.</td>
<td>09.22</td>
<td>Lecture: Theory &amp; the Enlightenment</td>
<td>see Study Guide #7 for readings</td>
</tr>
<tr>
<td>Tue.</td>
<td>09.27</td>
<td>Quiz #4 / Lecture: Neoclassicism - Form and Meaning</td>
<td>see Study Guide #8 for readings</td>
</tr>
<tr>
<td>Thu.</td>
<td>09.29</td>
<td>Lecture: 19th Century &amp; Pre-modern Architecture</td>
<td>see Study Guide #9 for readings</td>
</tr>
<tr>
<td>Tue.</td>
<td>10.04</td>
<td>Quiz #5 / Lecture: The Architect and Society (Education &amp; Licensing)</td>
<td>see Study Guide #10 for readings</td>
</tr>
<tr>
<td>Thu.</td>
<td>10.06</td>
<td>Lecture: Ideas of Modernity &amp; Frank Lloyd Wright</td>
<td>see Study Guide #11 for readings</td>
</tr>
<tr>
<td>Tue.</td>
<td>10.11</td>
<td>Mid-term Exam (9:30am to 10:45pm, room 204)</td>
<td></td>
</tr>
<tr>
<td>Thu.</td>
<td>10.13</td>
<td>Fall Break (no class)</td>
<td></td>
</tr>
<tr>
<td>Tue.</td>
<td>10.18</td>
<td>Lecture: Le Corbusier &amp; Modern Architecture</td>
<td>see Study Guide #12 for readings</td>
</tr>
<tr>
<td>Thu.</td>
<td>10.20</td>
<td>Lecture: The Bauhaus &amp; Mies van der Rohe</td>
<td>see Study Guide #13 for readings</td>
</tr>
<tr>
<td>Tue.</td>
<td>10.25</td>
<td>Quiz #6 / Lecture: Other Modernisms - Charles and Ray Eames</td>
<td>see Study Guide #14 for readings</td>
</tr>
<tr>
<td>Thu.</td>
<td>10.27</td>
<td>Lecture: Other Modernisms - Louis Kahn</td>
<td>see Study Guide #15 for readings</td>
</tr>
<tr>
<td>Tue.</td>
<td>11.01</td>
<td>Quiz #7 / Lecture: The Architecture &amp; Urbanism of New Orleans</td>
<td>see Study Guide #16 for readings</td>
</tr>
<tr>
<td>Thu.</td>
<td>11.03</td>
<td>Lecture: Modernist Urbanism - Ville Contemporaine vs. Unité</td>
<td>see Study Guide #17 for readings</td>
</tr>
<tr>
<td>Tue.</td>
<td>11.08</td>
<td>Quiz #8 / Lecture: Critiques of Modernism - Postmodernism</td>
<td>see Study Guide #18 for readings</td>
</tr>
<tr>
<td>Thu.</td>
<td>11.10</td>
<td>Lecture: Revisionist Urbanism - Seaside &amp; Collage City</td>
<td>see Study Guide #19 for readings</td>
</tr>
<tr>
<td>Tue.</td>
<td>11.15</td>
<td>Quiz #9 / Lecture: High-Tech Architecture—Foster, Piano, &amp; Rogers</td>
<td>see Study Guide #20 for readings</td>
</tr>
<tr>
<td>Thu.</td>
<td>11.17</td>
<td>Lecture: Hot, Flat and Crowded - why do we need architecture?</td>
<td>see Study Guide #21 for readings</td>
</tr>
<tr>
<td>Tue.</td>
<td>11.22</td>
<td>Quiz #10 / L: What is Deconstructivism? - Eisenman, Hadid, &amp; FOG</td>
<td>see Study Guide #22 for readings</td>
</tr>
<tr>
<td>Thu.</td>
<td>11.24</td>
<td>Thanksgiving Holiday (no class)</td>
<td></td>
</tr>
<tr>
<td>Tue.</td>
<td>11.29</td>
<td>Quiz #11/ Lecture: Preservation and Landscape Architecture</td>
<td>see Study Guide #24 for readings</td>
</tr>
<tr>
<td>Thu.</td>
<td>12.01</td>
<td>Traditional Japanese Architecture - Ise and Katsura</td>
<td>see Study Guide #23 for readings</td>
</tr>
<tr>
<td>Tue.</td>
<td>12.06</td>
<td>Quiz #12 / Lecture: Digital Fabrication and Mass Customization</td>
<td>see Study Guide #25 for readings</td>
</tr>
<tr>
<td>Thu.</td>
<td>12.08</td>
<td>Lecture: Public Interest Design (Last Class)</td>
<td>see Study Guide #26 for readings</td>
</tr>
</tbody>
</table>

Fri.  12.16  Final Exam (10:00am - 12:00pm, Room 204, School of Architecture)
Notes on Readings and Study Guides

WORLD ARCHITECTURE: A Cross Cultural History

Most of the course readings for Introduction to Architecture come from the recommended textbook *World Architecture: A Cross-Cultural History* by Richard Ingersoll and Spiro Kostof. Though it is an excellent text, this book is intended primarily as a resource for Architectural History courses and it includes far more material than we will explore in the Introduction course. Because the book contains more material than we will cover, the size and length of the text are not indicative of course content in this introductory class.

Additionally, not all of the material covered in the Introduction class is presented in *World Architecture*, so supplementary materials in the form of "study guides" will be distributed to the class (at no cost, of course). The textbook is available to purchase or rent at the Tulane Bookstore and through many online vendors. The textbook costs about $83 at Amazon.com and can be rented through Amazon for about $25-30. The book is available "used" through several sources starting at about $50.

It may be cost-effective for architecture students to purchase the book since the same text may be used in other required courses and it would serve as a good reference outside of its use in the classes where it is required.

Study Guides

As described above, the textbook *World Architecture* does not contain all of the material covered in the Introduction to Architecture course and the emphasis on particular issues and works of architecture will vary between the course content and the textbook. Therefore, a series of study guides will be distributed in the class (and available as a pdf on Canvas) to supplement the information in the textbook and help students prepare for quizzes and exams in the class. The study guides are made to correspond to the sequence of lectures in the course and will be distributed in class as they are needed. Quizzes in the course will cover only the information presented in the lectures and on the study guides, so the guides will form an excellent framework for reviewing the course material. Quizzes always cover the material presented in the previous two lectures of the course and each lecture is accompanied by a study guide, so there is never ambiguity about what material might be on a quiz or exam in the course.

The names, correct spellings, dates and other exact information about the buildings and concepts presented in the course are all covered in the study guides, so note-taking in the class need not include such specifics.
Introductory Notes

What is Architecture?
There are probably as many definitions of architecture as there are definers. Even an average dictionary offers several possibilities. Architecture may be called "the art and/or science of designing and erecting buildings;" or it may refer to the buildings themselves. The term may also refer to any orderly arrangement of parts, any system, or any complex organization. People may refer to the "architecture of a computer system," or to the "architecture of a political movement." In this course we will describe architecture in all of these ways, but we will most commonly think of architecture as a broad and interconnected body of knowledge. Architecture is a knowledge base which is notoriously vast with many areas of consensus, and a few areas of serious contention. This course will present a generalized framework of that architectural knowledge base and help to understand works of architecture and design in the larger cultures they serve or served.

Architecture involves the creation of works that are susceptible to analysis in scientific, mathematical, sociological, cultural and aesthetic terms. Each work of architecture has material, contextual, formal and functional issues to resolve and these aspects of any design may be in direct conflict with each other.

An old adage describing what architects know is perhaps the most telling: Architects are people who know a little bit about a lot of things and over the course of many years they learn less and less about more and more until finally they know nothing about everything. (This contrasts with engineers who are said to know a great deal about a very narrow range of things and throughout their lives learn more and more about less and less until finally they know everything about nothing.)

Architecture is a Humanity
The Humanities are defined as "those branches of knowledge, such as philosophy, literature, and art, that are concerned with human thought and culture; the liberal arts." Though some architects have tried, it does not seem possible, or even desirable, to reduce architecture to objectively derived equations and procedures. While often premised on fact-based problem-solving and practical exigencies, there is still a significant degree of subjectivity in architecture. A work of architecture may be variously interpreted, and the meaning of formal or programmatic relationships is not fixed. Even the most rigorous analysis of architecture has a relativist basis—a subjective point of view. Because of this, one may certainly describe architecture as a discourse.
Architecture is also a Science
Having just declared architecture to be a humanity, we must still acknowledge the rigorous mathematical certainties and constructional imperatives of the discipline of architecture. Buildings must stand up, for example, and roofs should not leak. These exigencies are part of the discipline of architecture and part of its system of rules, established procedures, and its knowledge base. One description of science is "Methodological activity, discipline, or study;" based on this definition, architecture is certainly also a science.

Architecture and Technology
Although we may think of technology today in terms of smart phones and spacecraft, buildings and their construction are technologically complex. Most buildings constructed today contain systems of structure, ventilation, security and life safety that, although they may be taken for granted, are quite substantial and not easily integrated to work together as a whole. Unlike smart phones and automobiles, however, architects do not typically design buildings for mass production. Most works of architecture are unique and are designed specifically for one place, one time, and one client. This means that the many technical systems of contemporary architecture must be applied anew to each new project and the pace of technological change as well as public expectations of building performance can make the challenge of technology in architecture quite substantial.

Today, most architecture works to acknowledge the changing needs of our planet—specifically intending to address the climate change happening so rapidly all around us. The creation of a building is one of the most energy intensive activities of our society and the energy used by buildings accounts for more than half of the carbon footprint of modern society. Thus, at the same time that public expectations of comfort and ease of use increase, the challenges of sustainable technologies and new construction materials makes the task of design and systems integration ever greater.

The sophistication of contemporary materials and construction techniques can also bring subjective questions to the fore. If a new material can "look like wood" but is not wood, some architects wonder if that material is "honest" and if the use of such a material is a practice in deceit and in the degradation of the built environment. Even the ancient Greek architects worried about this problem when they began to build temples in stone rather than wood. They asked "should our temples look like they once did, or should they reflect the material change...?" This debate goes on today.
Architecture and Art
Architecture and art are not the same thing. Though it is overly simplistic to say that architecture must function while art need not, we might well say that while art is often an individual expression of some thought or desire of the artist, Architecture—due to its great expense and complexity—is most often the collective expression of the multiple constituencies responsible for designing, building, and inhabiting it. In addition, art is most often intended to be contemplated in a “state of concentration” while architecture is more likely to be apprehended in a “state of distraction.” This last distinction has its exceptions but most architecture cannot be apprehended in a single “eyeful.” It is therefore often necessary to “experience” architecture—to use it—moving through and around it over a period of time in order to apprehend it completely. This “experiencing” of architecture is most often carried out in the context of doing other things, and thus we may say that it is normally experienced “in a state of distraction.”

Architecture and Language
Having just written that architecture is not usually perceived in a state of concentration, it is none-the-less possible to think of architecture as a language. Buildings can evoke quite clear messages about their use (simple ideas like “front and back or entry”) and works of architecture often repeat organizational ideas to facilitate their use (think of airports which are usually composed of similar elements in a predictable order). As major cultural artifacts, works of architecture are often expected to communicate the values of a society and the meaning of a particular structure or place.

Architecture and Buildings
Though the most common realization of architecture is a constructed building, architecture and buildings are not synonymous. There are many buildings constructed everyday which would not be described as architecture by some. Likewise, there are architectures which are not buildings. Architecture is a body of knowledge which concerns itself with building and buildings but is not limited to them.

Design as the Site of a Great Synthesis
Synthesis is the combining of separate elements, substances or concepts to form a coherent whole. As such we often describe architecture as a “synthetic discourse” since it necessarily involves the combination of specialized practical knowledge, abstract concepts, critical and analytical thinking, and the experiences gained through a direct engagement with the material world. Design is the act which combines or synthesizes those ideas and experiences into proposals for form and space.

Above: In this ink wash of an oil platform in the Gulf of Mexico, architect Errol Barron has revealed an obscure beauty in an industrial structure. One may be tempted to ask if this structure may be called “architecture” or if its utilitarian nature separates it from carefully designed works of more intentional building.
Semester Building List

1. The Parthenon (WA134-137)
   Acropolis, Athens, by Iktinos & Kallikrates, in 447-432 BCE
2. The Erechtheion (WA 134-137)
   Acropolis, Athens, Greece, by Kallikrates, in 421-405 BCE
3. The Colosseum (WA 160)
   In Rome, Italy, 81 CE
4. The Pantheon (WA 171-174)
   In Rome, Italy, by Hadrian, in 127 CE
5. Hagia Sophia (WA 206-210)
   In Constantinople (Istanbul), by Isidoras, in 537 CE
6. Fontenay Abbey (Study Guide only)
   In France, 1139-1147 CE
7. Chartres Cathedral (WA 350-351)
   In Chartres, France, 1220 CE
8. S. Maria della Fiore (Il Duomo) (WA 374-376)
   In Florence, Italy, by Brunelleschi, 1420-1436 (Dome)
9. Palazzo Medici (WA 380-381)
   In Rome, Italy, by Bramante, 1504
10. Tempio Pausania (WA 464)
    In Rome, Italy, by Bramante, 1504
11. Lorentian Library (WA 470-471)
    In Florence, Italy, by Michelangelo, 1526
12. Campidoglio (WA 472)
    In Rome, Italy, by Michelangelo, 1537-1570
13. S. Carlo alle Quattro Fontane (Four Fountains) (WA 518)
    In Rome, Italy, by Borromini, 1641
14. S. Andrea del Quirinale (WA 517)
    In Rome, Italy, by Bernini, 1670
15. Salt Works (WA 613-614)
    At Chaux, France, by Le Doux, 1775
16. A Cenotaph to Isaac Newton (WA 617)
    unbuilt project, by Boullee, in 1784
17. Carceri (Prisons) (WA 602)
    Etchings, by Piranesi, in 1744
18. Univ. of Virginia (WA 648-649)
    In Charlottesville, by Thomas Jefferson, 1826
19. Altes Museum (WA 637)
    In Berlin, by Karl Friedrich Schinkel, 1830
20. Bibliothèque St. Genevieve (WA 662)
    In Paris, by Henri Labrouste, 1850
21. Crystal Palace (WA 670-672)
    In London, by Joseph Paxton, 1851
22. Auditorium Building (WA 700)
    In Chicago, Illinois, by Adler & Sullivan, 1890
23. Monadnock Building (Study Guide only)
    In Chicago, Illinois, by Burnham and Root, 1892
24. Reliance Building (WA 697)
    In Chicago, Illinois, by Burnham and Root, 1892
25. Carson Pirie Scott (WA 698-699)
    In Chicago, Illinois, by Louis Sullivan, 1904
26. Robie House (WA 749)
    In Chicago, Illinois, by Frank Lloyd Wright, 1909
27. Kaufman House, (Bear Run or Falling Water) (WA 794)
    In Mill Run, Pennsylvania, by Frank Lloyd Wright, 1936
28. Guggenheim Museum (WA 887)
    In New York City, by Frank Lloyd Wright, 1959
29. Villa Savoye (WA 802-803)
    In Poissy, France, by Le Corbusier, 1931
30. Notre-Dame-du-Haut (Ronchamp) (WA 807)
    In Ronchamp, France, by Le Corbusier, 1955
31. Unité d’Habitation (WA 805)
    Marseille, France, by Le Corbusier, 1946-52
32. La Tourette (Monastery) (Study Guide)
    Near Lyon, France, by Le Corbusier, 1957
33. The Bauhaus (WA 816)
    In Dessau, Germany, by Walter Gropius & Adolf Meyer, 1926
34. German Pavilion (Barcelona Pavilion) (WA 816)
    In Barcelona, Spain, by Ludwig Mies van der Rohe, 1929
35. Illinois Institute of Technology (IIT) (WA 842, 846)
    In Chicago, Illinois, by Ludwig Mies van der Rohe, 1940-1956
36. Farnsworth House (WA 845)
    In Plano (near Chicago), Illinois, by Ludwig Mies van der Rohe, 1951
37. Villa Mairea (WA 880)
    In Noormarkku, Finland, by Alvar Aalto, 1937-40
38. Säynätsalo Town Hall (WA 881)
    In Säynätsalo, Finland, by Alvar Aalto, 1952
39. Villa Müller (WA 780)
    In Prague, Czech Republic, by Adolf Loos, 1926
40. Lovell Beach House (WA 797)
    In Newport Beach, Los Angeles, California, by Rudolph Schindler 1926
41. Phillips Exeter Library (Study Guide only)
    In Exeter, New Hampshire, by Louis Kahn, 1966-72
42. The Salk Institute for Biological Studies (WA 893)
    In La Jolla, California, by Louis Kahn, 1965
43. The Kimbell Art Museum (WA 894)
    Fort Worth, Texas, by Louis Kahn, 1968
44. Eames House (WA 840)
    In Los Angeles, California, by Charles & Ray Eames 1945-49
45. Pompídou Center (WA 908)
    In Paris, France, by Renzo Piano & Richard Rogers, 1977
46. Menil Collection (Art Museum) (WA 921)
    In Houston, Texas, by Renzo Piano, 1986
47. Hong Kong Bank (WA 558)
    In Hong Kong, China, by Sir Norman Foster, 1987
48. Numbered Houses ie: House III (WA 559) & House VI (Study Guide)
    In Lakeville, CT & Long Island, NY, by Peter Eisenman, 1969-71
49. Weiner Center for the Visual Arts (Study Guide)
    In Columbus Ohio, by Peter Eisenman, 1983-89
50. Gehry House, (Study Guide)
    In Santa Monica, California, by Frank O. Gehry, 1977-78
51. Guggenheim, Bilbao (WA 923)
    In Bilbao, Spain, by Frank O. Gehry, 1997
52. Rosenthal Center for Contemporary Art (Study Guide)
    In Cincinnati, Ohio, by Zaha Hadid, 2003
53. Domus Winery (WA 947)
    In Napa Valley, California, by Herzog and de Meuron, 1997
54. Bordeaux Villa (Study Guide)
    Near Lyon, France, by Rem Koolhaas (OMA), 1998
55. Ise Shrine (Study Guide)
    In Uji-Yamada, Japan, 690 CE
56. Katsura Imperial Villa (WA 532-533)
    In Kyoto, Japan, ca. 1616-1660
57. Sogn Benedetg Chapel (Study Guide)
    In Sendai, Japan, 2000
58. Thermal Baths (Spa) Building (WA 949)
    In Vals, Switzerland, by Peter Zumthor, 1996
59. Sendai Mediatheque (Library and Gallery) (WA 931)
    In Sendai, Japan, 2000
60. Gondo Primary School (WA 956)
    In Gondo, Burkina Faso, by D. F. Kéré, 2001

[WA = see World Architecture; SG = see Study Guides only]