

**COURSE SYLLABUS – ARCH 235**  
**Intro to Computer Applications in Architecture**

1. **Instructor:** Lance Walters
2. **Course Name/Number:** Arch 235
3. **Number of Credits:** 4 credit Studio
4. **Enrollment Minimum:** 20 **Enrollment Maximum:** 60
5. **Accept non-majors:** No
6. **Prerequisites:** 132
7. **Weekdays:** Mon. Wed. Fri.
8. **Class Time/Place:** 1:30 – 4:30pm Room 214
9. **Brief Course Description:**

Exploration of digital design fundamentals and their application to architectural analysis, conceptualization, design process, and communication of design intention. This course will provide digital *design* skills that serve as a foundation for the continuing use of digital mediums in architecture.

**10. PROJECTS:**

See Lulima and handouts

**11. Materials & Hardware: REQUIRED- to be discussed in class.**

In accordance with the school of architecture, each student is required to each have his/her own laptop running Windows 7 or higher. A computer mouse, charged laptop and power supply is required everyday.

\*Mac's: mac computers may be used with Adobe CS portion ONLY. If you use a Mac it will need to run Windows through Bootcamp or Parallels. Support for these programs will not be provided and considerations (grades, etc) for problems that arise with mac use will not be given.

<b>Programs required to purchase:</b> Rhino 4.0 sr9 (edu copy available) <a href="http://www.rhino3d.com/eduproducts.htm">http://www.rhino3d.com/eduproducts.htm</a> Adobe CS5 or higher. (min: photoshop, illustrator, indesign, acrobat, bridge) Adobe After Effects (to be discussed)	<b>Programs required to install (free)</b> Autodesk Autocad + Autodesk 3d Max Sketchup, Google Earth Vray (through the school) Grasshopper (to be discussed)
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**12. Grading:**

Grading for the course will be based on the assignments, projects and quizzes balanced with a written midterm and final exam. Timeliness and completion of all projects requirements are critical. Work should be backed up often. Accidents and failures are not excuses for missing assignments. Think about dedicating an external drive/flash drive to the course.

**Private conferences with the Instructor may be undertaken at ANY time to discuss individual goals, progress and grading.**

As a general guide, an “A” student completes all assigned work on time, exceeds requirements, displays creativity, rigor and care in all work, shows excellence in analysis, synthesis, communication/presentation clarity, and demonstrates skills and knowledge required in the course including the ability to develop a consistent and highly developed proposal.

A “C” student completes all assigned work on time, just meets requirements, displays moderate creativity, rigor and care in all work, shows moderate skill in analysis, synthesis, communication/presentation clarity, and demonstrates average skills and knowledge required in the course including the ability to develop a moderately consistent and developed building proposal .

Digital Presentation Programs	20%
Computer Aided Drafting	20%
Computer Modeling	30%
Computer Fabrication	30%

### **13. Attendance & Lateness:**

Students must attend all class sessions on time remain till the end of class. You are responsible for keeping track of your own attendance. Four unexcused absences will result in your being dropped from the class. Absences may be excused only with prior written permission from the instructor.

All late work without prior approval will receive a maximum of a C+.

Oral presentation WILL NOT be accepted late.

### **14. Class Organization:**

Students will be treated as professionals and are expected to work on a daily basis. Class attendance and active working participation for the **entire** period is mandatory unless special assignments outside of the class have been assigned. Two short breaks will be given and students should take advantage of these.

### **15. NAAB Criteria**

#### **SPC- Student Performance Criteria**

##### **A. 3. Visual Communication Skills**

Ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.

### **16. SLO- Student Learning Objectives**

\_Ability to select and effectively use relevant digital software including: raster and vector based graphics editors, desktop publishing, 3d modeling and CAD, video compilation and editing.

\_Ability to select and properly use digital fabrication equipment including: cnc router, laser cutter and 3d printers.

\_Understanding of digital tools impact on creation and communication of design

\_Understanding of digital fabrications role in the future of design

### **17. UHM/SCHOOL OF ARCHITECTURE POLICIES AND PROCEDURES:**

The course will follow current University of Hawaii and School of Architecture Policies and Procedures and all students are expected to be familiar with and abide by these Policies and Procedures .

Assumption of Risk and Release Form: All students enrolled in this course are required to complete the School of Architecture Assumption of Risk and Release Form or to have made alternative arrangements with the Associate Dean to accomplish the shop or fieldwork required of the course. Enrollment in this course will be accepted as affirmation that the requirement has been met.

### **18. MISCELLANEOUS COURSE POLICIES AND PROCEDURES:**

Right to Change. The information contained in the Course Syllabus and Course Schedule are subject to change. Every reasonable effort will be made to promptly notify students of any change.

Materials: Students will be required to obtain and purchase materials for model building. It is recommended that at least **\$300** to cover the full period of the course be budgeted for such materials.

Shop Requirement. All students are required to complete required procedures for use of the School of Architecture Shop, including specified safety tests and checkout on equipment to include the table saw, jig saw, band saw, and drill press. Safety equipment is required for use of the School of Architecture Shop. The equipment is to be provided by the student. Failure to complete these required procedures later than the second week of classes may disallow proper completion of assignments, and have an adverse effect on grading.