ARCH 410/510 BUILDING INFORMATION MODELING, REVIT

Spring Term 2014
Tuesday and Thursday 7pm-9pm
White Stag Building, Room 374 (Computer Lab)
2 Credits, Pass/No Pass

DESCRIPTION

This course provides students with a broad introduction to the Revit software as an example of a Building Information Modeling (BIM) tool. Through lab activities, students will learn Revit techniques for conceptual design through construction documentation, including:

- Parametric modeling;
- Design documentation;
- Rendering workflows;
- and data input and analysis.

Through lectures and discussions, students will learn how the model can be used during for design coordination, construction administration, and even post-occupancy. There will be two guest speakers during the course of the term.

GOALS

- Understand the characteristics of and uses for a Building Information Model, and how the BIM process differs from other 2D and 3D architectural documentation processes.
- Develop an intermediate skill level in Revit, sufficient to successfully model and document a student project as well as to attain an entry-level architectural internship.
- Create a portfolio entry or work sample to demonstrate Revit knowledge to future employers.

MATERIALS

SOFTWARE

Revit Architecture 2014 is installed on all computers in the computer lab and is available free to students at Autodesk’s website. The software runs on Windows only, but can be run on Mac computers via Bootcamp.

TEXT

Required:

- Autodesk Revit Architecture 2014 Essentials by Duell, Hathorn, and Hathorn
  ISBN: 978-1-118-57508-6 (available as an e-book)

Recommended:

- Mastering Autodesk Revit Architecture 2014 by Vandezande, Krygiel, and Read

Additional tutorials and readings will be available via Blackboard.

EXPECTATIONS AND ASSESSMENT

Under the UO quarter system, each undergraduate credit reflects approximately thirty hours of student engagement (x2=60 hrs for this course). Graduate students are expected to perform
work of higher quality and quantity, typically with forty hours of student engagement for each credit hour (x2=80 hrs for this course). Assignment requirements and evaluation criteria will be adjusted accordingly.

ATTENDANCE AND PARTICIPATION

Attendance is vital to student success in this course. Students are expected to attend class, stay on task, and complete in-class assignments. Absences that are coordinated with the instructor beforehand can be off-set with make-up tutorial assignments.

TERM PROJECT AND ASSIGNMENTS

The best way to learn Revit is to use it. Students will model and document a small building using Revit with check-ins on a bi-weekly basis. Students currently enrolled in studio courses may use their studio project as their term project building but are advised to consider the learning curve associated with Revit before deciding to do so. The course will culminate in a pin-up of these term projects.

Additional minor assignments may be required as necessary to achieve full comprehension of the course material at the discretion of the instructor.

Late assignments will be accepted for reduced credit:

<1 day late -5%
1-7 days late -20%
>7 days late -30%

EXTRA CREDIT

Extra credit assignments will be offered on a limited basis based on student needs.

ASSESSMENT BREAKDOWN

| Attendance and Participation | 20% |
| Term Project and Assignments | 80% |
| (5 check-ins + final pin-up) | |

GRADING POLICY

<table>
<thead>
<tr>
<th>Undergraduates</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass 70% (C-) or above</td>
<td>80% (B-) or above</td>
</tr>
<tr>
<td>No Pass 69% (D+) or below</td>
<td>79% (C+) or below</td>
</tr>
</tbody>
</table>

Images from the design and construction of the Edith Green-Wendell Wyatt Federal Building, courtesy of SERA Architects.