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| <b>COURSE TITLE<br/>BLACKBOARD SITE</b>                                  | ARC 4813 - Advanced Revit Online<br>Fall 2012 – <a href="http://my.ltu.edu">http://my.ltu.edu</a> and select CRN 1827  |
| <b>INSTRUCTOR</b>  | <b>Prof. Jessica (Kaadou) Marji</b><br><br>Contact Information:<br>Email: <a href="mailto:jkaadou@ltu.edu">jkaadou@ltu.edu</a>   |
| <b>SCHEDULE</b>  | August 29 – December 21, 2012<br><br>Refer to<br><a href="http://www.ltu.edu/registrars_office/calendar_final_exam.index.asp">http://www.ltu.edu/registrars_office/calendar_final_exam.index.asp</a> for<br>the last date to withdraw and other important registration related<br>information.   |
| <b>LEVEL/HOURS<br/>PREREQUISITE</b>                                      | College of Architecture and Design Course/ 3 credit hours<br>Must have Revit Architecture experience or proof of proficiency.  |
| <b>REQUIRED TEXT</b><br><br>(See Blackboard for<br>additional resources) | Mastering Autodesk Revit Architecture 2012 by James Vandezande,<br>Phil Read, Eddy Krygiel, and, Wiley Publishing, Inc., ISBN: 978-0-470-<br>93749-5<br>Autodesk Official Training Guide for Autodesk Certification Preparation<br>Available for online purchase through LTU Bookstore at:<br><a href="http://lawrence-tech1.bkstore.com/bkstore/TextbookSelection.do?st=489">http://lawrence-<br/>tech1.bkstore.com/bkstore/TextbookSelection.do?st=489</a> |
| <b>ADDITIONAL<br/>RESOURCES</b>  | LTU Online student resources: <a href="http://www.ltu.edu/ltuonline/">http://www.ltu.edu/ltuonline/</a>  |
| <b>TECHNICAL<br/>SUPPORT</b>   | Technical support for using Blackboard is provided by the Helpdesk,<br>248.204.2330 or <a href="mailto:helpdesk@ltu.edu">helpdesk@ltu.edu</a> . Send the Help Desk a form<br>detailing any issues by clicking here <a href="http://tinyurl.com/3yqrvne">http://tinyurl.com/3yqrvne</a> .   |

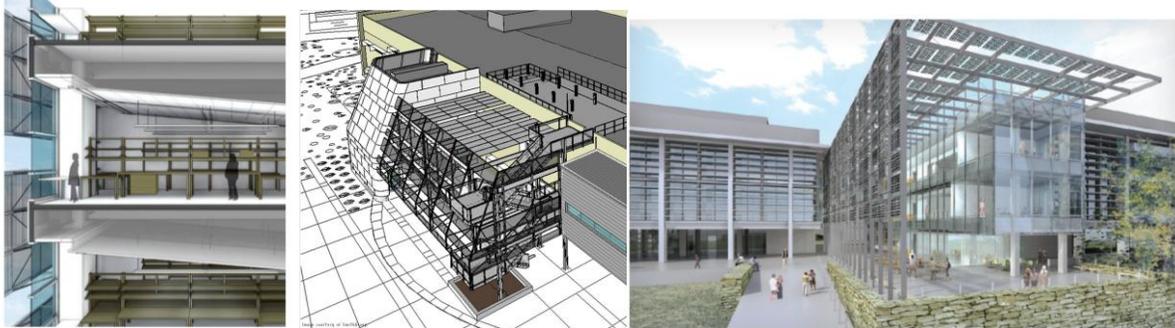
## CATALOG DESCRIPTION

This course explores the more in-depth features of the Revit Architecture program and expands on the basic 3D modeling techniques as well as introducing the more advanced features of the Revit Architecture program including but not limited to custom family creation, working with design options, rendering and sun/shadow studies. An emphasis is put on those features that will be most beneficial to the student as they enter the profession.

## STUDENT LEARNING OUTCOMES

- Upon completion of this module students will be introduced to the course and professor.
- Upon completion of this module students will review and demonstrate the fundamentals of Revit Architecture.
- Upon completion of this module students will create a 3D conceptual mass model using Revit Architecture.
- Upon completion of this module students will explore sustainable design strategies within the Revit model and export Revit information to other energy analysis software applications.
- Upon completion of this module students will develop the different phases of a project, groups and Design Options.
- Upon completion of this module students will create presentations with visualization techniques.
- Upon completion of this module students will examine walls, floors and roofs, stairs and railings
- Upon completion of this module students will utilize the family editor.
- Upon completion of this module students will administer the Revit workflow, templates, customizing standards and worksharing.
- Upon completion of this module students will compare coordination and collaboration within Revit projects and with other software programs.
- Upon completion of this module students will examine Revisions, Digital Markups: Autodesk Design Review .dwf, and how a builder uses Revit.
- Upon completion of this module students will describe Virtualization: running multiple operating systems, customizing Revit and Revit Application Program Interface (API).
- Upon completion of this module students will research concepts of digital fabrication, using Revit for film and stage, and cloud computing.
- Upon completion of this module students will participate in the Autodesk Certification Exam.
- Upon completion of this module students will construct a modeling project using the online Autodesk BIM Workshop tutorial encouraging use of additional tutorials after this course.

SmithGroup is one of many offices using the Autodesk Revit-based software. They are a national design firm with an office in Detroit, Michigan.



**This advanced course is designed to educate and motivate you to accelerate beyond the course topics with the additional resources posted and your desire to succeed.**

**It is important for you as students to know what to expect from me as your instructor:**

- I will be available to you via e-mail and phone, and will promptly reply to your messages.
- I will be available to you for face-to-face appointments as requested.
- I will maintain the Blackboard web site with current materials, and will resolve any content-related problems promptly as they are reported to me.
- I will send out a weekly e-mail update to all class members to guide upcoming work and remind you of assignment due dates.
- I will return all assignments to you promptly, and will include individualized comments and suggestions with each assignment.
- I will hold our personal written or verbal communications in confidence. I will not post any of your assignments for viewing by the class without requesting your approval in advance.
- I will treat all members of the class fairly, and will do my best to accommodate individual learning styles and special needs.
- If any of these points need clarification, or when special circumstances arise that require my assistance, please contact me so that we can discuss the matter personally.

## CLASS POLICIES AND EXPECTATIONS

- If an assignment or quiz is late than there will be a 20% deduction of the total possible points (Example: a 30 point assignment grade is only worth 24 points). Once an assignment is late, it's late, so whether you turn it in one day late or one month late it will get deducted the same amount of points.
- While late submissions will be accepted with deductions, please let your instructor know if you are having difficulty over an extended period. Please treat this as any other university course and uphold your responsibility to participate and to inform your instructor of any major issues in a timely manner.
- Each student has a LTU email account. If you wish to use a different email address for this course, please **change your email address in Blackboard under "Blackboard Tools", then "Personal Information"** and send an email to me so I can store your address in my email directory.
- Readings, discussion forum participation, assignments and quizzes must be completed according to the class schedule. It is important to contact me as needed to discuss personal needs regarding course requirements and assignments.
- It is essential that all students actively contribute to the course objectives through their experiences and working knowledge.
- All assignments must be submitted on schedule, via Blackboard, and using Microsoft Office compatible software. If you need to submit an assignment via email, please let me know why you didn't submit it via Blackboard.
- Assignments must be completed to an adequate standard to obtain a passing grade. Requirements for each assignment are detailed in this syllabus.
- At midterm and at the end of the course, you will be invited to participate in a University evaluation of this course. Your feedback is important to the University, to LTU Online, and to me as an instructor, and I encourage you to participate in the evaluation process. Refer to Grade Calculations

## UNDERGRADUATES: LEADERSHIP TRANSCRIPTS

The leadership transcript enables students to track co-curricular activities that are undertaken above and beyond the requirements of the LTU curriculum. The leadership transcript serves students by enhancing the leadership portfolio; providing the opportunity for a transcript of distinction; enhancing their resumes; and assisting in articulating leadership experience. It can be accessed by logging on to Banner Web and clicking the Student and Financial Aid tab. Leadership Activities is located at the bottom of the list.

## COURSE SCHEDULE

This fully online course begins with a partial week online course orientation period to familiarize yourself with the online learning environment and to meet online or via the phone with your instructor. The assignments are smaller than an introduction class because you will be starting with a developed project or creating part of a project to learn advanced Revit features. Details about each Module will be posted on Monday at 12:00 am and due before Sunday at 11:59 pm. Please do not hesitate to keep in touch via email or phone if you have any questions or concerns. Thank you.

| Dates                                      | Modules  | Topics / Readings   | Assignments Due   |
|--|----------|---|---|
| Prior to Semester Start and Aug 29 – Sep 2 | Module 0 | Overview of textbook<br>Online Learning Orientation<br>Course Orientation | Course orientation<br>Instructor and student introduction.                              |
| Week of Sep 3 – Sep 9                      | Module 1 | Chapter 1 – 3 Fundamentals  | Assignment 1<br>Quiz 1<br>Online Activity 1<br>Discussion Board Topic 1                 |
| Week of Sep 10 – Sep 16                    | Module 2 | Chapter 9, 21<br>Modeling, Massing, Conceptual Design,                    | Assignment 2<br>Quiz 2<br>Online Activity 2<br>Discussion Board Topic 2                 |
| Week of Sep 17 – Sep 23                    | Module 3 | Chapter 10 Sustainability within your Conceptual Design                   | Assignment 3<br>Quiz 3<br>Online Activity 3<br>Discussion Board Topic 3                 |
| Week of Sep 24 – Sep 30                    | Module 4 | Chapter 12, 20 Visualization, Presenting Your Design                      | Assignment 4<br>Quiz 4<br>Online Activity 4<br>Discussion Board Topic 4                 |
| Week of Oct 1 – Oct 7                      | Module 5 | Chapter 11 Phasing, Groups, Design Options                                | Assignment 5<br>Quiz 5<br>Online Activity 5<br>Discussion Board Topic 5                 |
| Week of Oct 8 – Oct 14                     | Module 6 | Chapter 13 Walls and Curtain Walls  | Assignment 6<br>Quiz 6<br>Online Activity 6<br>Discussion Board Topic 6                 |
| Week of Oct 15 – Oct 21                    | Module 7 | Chapter 14, 16 Floors, Ceilings, Roofs, Stairs and Railings               | Assignment 7<br>Quiz 7<br>Online Activity 7<br>Discussion Board Topic 7                 |
| Week of Oct 22 – Oct 28                    | Module 8 | <b>Mid-Term Assessments</b>   | Midterm Assignment 8<br>Midterm Quiz 8<br>Online Activity 8<br>Discussion Board Topic 8 |
| Week of Oct 29 – Nov 4                     | Module 9 | Chapter 15 Family Editor  | Assignment 9<br>Quiz 9<br>Online Activity 9<br>Discussion Board Topic 9                 |

| Dates                   | Modules    | Topics / Readings   | Assignments Due   |
|-------------------------|------------|---|---|
| Week of Nov 5 – Nov 11  | Module 10  | Chapter 17-19 Detailing, Documenting and Annotating Your Design                   | Assignment 10<br>Quiz 10<br>Online Activity 10<br>Discussion Board Topic 10 |
| Week of Nov 12 – Nov 18 | Module 11  | Chapter 4-7 Standards, Management, Worksharing<br>Collaboration with Consultants, | Assignment 11<br>Quiz 11<br>Online Activity 11<br>Discussion Board Topic 11 |
| Week of Nov 19 – Nov 25 | Module 12  | Chapter 8 Multiplatform<br><b>Light Week – Thanksgiving Break</b>                 | Assignment 12<br>Quiz 12<br>Online Activity 12<br>Discussion Board Topic 12 |
| Week of Nov 26 – Dec 2  | Module 13  | Chapter 22 Revisions, Markups   | Assignment 13<br>Quiz 13<br>Online Activity 13<br>Discussion Board Topic 13 |
| Week of Dec 3 – Dec 9   | Module 14  | Chapter 23- 26 Construction and Beyond, Additional Tools                          | Assignment 14<br>Quiz 14<br>Online Activity 14<br>Discussion Board Topic 14 |
| Week of Dec 10 – Dec 16 | Module 15  | Appendices: Review, Troubleshooting, Autodesk Certification Exams                 | Assignment 15<br>Quiz 15<br>Online Activity 15<br>Discussion Board Topic 15 |
| Week of Dec 17 – Dec 21 | Final Exam | Final Exam Information  | Final Exam  |

### STUDENT EVALUATION ASSIGNMENT DETAILS

| Grade Calculations                 | Points      |
|------------------------------------|-------------|
| Student Introduction               | *           |
| Student Evaluation Mid-Term        | 15          |
| Student Evaluation Final           | 15          |
| 15 Assignments @ 20 pts            | 300         |
| 15 Quizzes @ 15 pts                | 225         |
| 15 Online Activity @ 12 pts        | 180         |
| 15 Discussion Board Topic @ 11 pts | 165         |
| Final Exam                         | 100         |
| <b>Total Possible Points</b>       | <b>1000</b> |
| Online Participation is required   |             |

| Class Points  | Letter Grade |
|---------------|--------------|
| 930 and above | A            |
| 900 – 929     | A-           |
| 870 – 899     | B+           |
| 830 – 869     | B            |
| 800 – 829     | B-           |
| 770 – 799     | C+           |
| 700 – 769     | C            |
| 680 – 699     | C-           |
| 660 – 679     | D+           |
| 630 – 659     | D            |
| 600 – 629     | D-           |
| 590 and below | F            |

- If an assignment or quiz is late than there will be a 20% deduction of the total possible points (Example: a 20 point assignment grade is only worth 16 points). Once an assignment is late, it's late, so whether you turn it in one day late or one month late it will get deducted the same amount of points.