COLLEGE OF ARCHITECTURE, DESIGN AND CONSTRUCTION
McWHORTER SCHOOL OF BUILDING SCIENCE
AUBURN UNIVERSITY
BSCI 7036: CONSTRUCTION INFORMATION MANAGEMENT

INSTRUCTOR: Anoop Sattineni, Anoop@auburn.edu
(O) 334-844-5385, (C) 334-329-0357.

COURSE OBJECTIVES:
The overall purpose of this course is to explore, discover and create Building Information Models using the currently available tools in the industry.

Upon course completion, student should:

- Be able to work with the basic and advanced modeling techniques using Revit and related software.
- Be able to prepare a BIM model for cost estimation and constructability purposes.
- Be able to create a detailed cost estimate using Autodesk QTO.

CLASS PROCEDURE:
Class sessions will consist of lecture, demonstration, and hands-on guided instruction on the computer. Students are expected to arrive on time and stay for the entire period. Food, drink or tobacco products are strictly prohibited in the classroom.

TOPICS COVERED:
The following represent topics covered in this class.

- Introduction to Building Information Modeling
- Revit Architecture
- Revit MEP
- Revit Structure
- Autodesk Design Review
- Navisworks Manage
- Autodesk QTO
- Autodesk Ecotect
- D-Profiler

E-MAIL/ BLACKBOARD / SKYPE / FILE LOCATIONS:

E-mail is recognized as an official means of communication by the University. You are responsible for any class requirements and schedules that are altered in a timely manner using e-mail. This is a blackboard supported course, grades and other pertinent information will be posted on blackboard. Instructor will demonstrate Skype for communication during the semester. The instructor will also show default locations for placing assignments.

COURSE POLICIES:

ATTENDANCE
Required!

ASSIGNMENTS / EXERCIES:
The exercises outlined above must be completed and posted online by the dates specified by the instructor. Late assignments will be marked down three points per day for up to one week. No assignment will be accepted more than one week late.

TESTS
There will be three scheduled tests and one final exam. These must be taken at the time and date that has been specified. Students are expected to coordinate their tests and exams with the proctor designated by Student Services in the AU Graduate Outreach Office. Information concerning the proctor will be available at http://www.eng.auburn.edu/gop/testproctors.htm.

There will be no make-up tests except in the cases of extreme emergency outlined above. In those cases, arrangements to make up missed a missed test or final exam due to properly authorized excused absences must be initiated by the student within one week from the end of the period of the excused absences. Make-up exams will take place within two weeks from the time that the student initiates arrangements for it. Except in extraordinary circumstances, no make-up exams will be arranged during the last three days before the final exam period begins. The format of the make-up exam will be specified by the instructor according to the circumstances.

ACADEMIC HONESTY:
All portions of the Auburn University student academic honesty code (Title XII) found in the Tiger Cub will apply to this class. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

STUDENTS WITH DISABILITES:
Students who need special accommodations in class, as provided for by the American Disabilities Act, should arrange a confidential meeting with the instructor during office hours the first week of classes - or as soon as possible if accommodations are needed immediately. You must bring a copy of your Accommodation Memo and an Instructor Verification Form to the meeting. If you do not have these forms but need accommodations, make an appointment with The Program for Students with Disabilities, 1244 Haley Center, 844.2096 (V/TT) or email: scw0005@auburn.edu

JUSTIFICATION FOR GRADUATE CREDIT:
Feedback and evaluation will incorporate rigorous professional standards and will be provided by faculty holding graduate faculty status. Graduate students will be expected to be able to synthesize and apply knowledge in a more comprehensive manner than undergraduates.

GRADING:

SCALE		SCHEME	
90 +	A		
80 - 90	B	Tests (3 x 15 = 45%)	45%
70 - 80	C	Projects (25% + 30%)	20%
65 - 70	D	TOTAL	100%
<65	F		

TENTATIVE SCHEDULE:

Date	Topic
Week 1	Class Information Conceptual Estimating with D-Profiler Introduction to Building Information Modeling Introduction to Industry Foundation Classes (IFC) Install Revit Architecture Introduction to Revit Menu System and Revit Terminology Revit Architecture Fundamentals: Drawing, Editing and Modifying Tools Levels, Grids, Columns, Walls, Doors and Windows Revit Architecture Fundamentals: Storefront Windows, Floors, Openings, Sections
Week 2	Revit Architecture Fundamentals: Storefront Windows, Floors, Openings, Sections
Week 3 (Sep -1)	Test 1 Revit Architecture Fundamentals: Roofs, Stairs, Ramps and Railings
Week 4	Revit Architecture Fundamentals: Ceilings, Sheets, Tags and Schedules
Week 5	Test 2 Revit MEP Fundamentals: Creating a MEP system and Ducting tools in Revit MEP
Week 6	Revit Structure Fundamentals: Creating a structural system and structural detailing in Revit Structure
Week 7	Test 3 Revit Architecture Advanced: Importing and Exporting files. Working with external files.
Week 8 Oct-8	Revit Architecture Advanced: Phasing and Design Options
Week 9	Revit Architecture Advanced: Work-sharing and Massing
Week 10	Revit Architecture Advanced: Creating and Editing Families in Revit
Week 11	Revit Architecture Advanced:

Oct-27	Creating and Editing Families in Revit
Week 12 Nov-3	Autodesk Navisworks: Clash Detective, Animator, Presenter and Timeliner
Week 13	Autodesk QTO: Quantity Takeoff and Pricing with Autodesk Revit and QTO
Week 14 Nov-17	Autodesk Energy Analysis using Revit Models and Autodesk Ecotect
Week 15	Test 4 Constructability Analysis, Erection Sequencing and Scheduling using Tekla Models Work on Final Project Final Project Presentations