COURSE TITLE **BLACKBOARD SITE**	ARC3823 - **Electronic Methodologies Two**, On-Line (OL) Fall Semester 2012 – http://my.ltu.edu and select CRN 1753
INSTRUCTOR	**Alan Hall** Adjunct Faculty – Lawrence Technological University College of Architecture and Design (BIM+CV Certificate Coordinator) Contact Information: E-mail: **ahall@ltu.edu** Business phone: (248) 674-4300 Office: A-142 - Office hours by appointment
SCHEDULE	August 29, 2012 (Wednesday) – December 21, 2012 (Friday) Refer to http://www.ltu.edu/registrars_office/calendar_final_exam.index.asp for the last date to withdraw and other important registration related information.
LEVEL/ HOURS **PREREQUISITE**	Undergraduate Degree / 3 credit hours Prerequisite requirements: **Electronic Methodologies One** (ARC 2813)
REQUIRED TEXT (Both of these books are mandatory and will be used extensively throughout the class) Acquiring these books before the first day of class is essential.	**Mastering Autodesk's 3ds Max Design 2011** By: Mark Gerhard and Jeffery Harper Publisher: Sybex, August 16, 2010 ISBN: 978-0-470-88262-7 **BIM Handbook: A Guide to Building Information Modeling for Owners, Managers, Designers, Engineers and Contractors** Second Edition By: Chuck Eastman, Paul Teicholz, Rafael Sacks, and Kathleen Liston Wiley Publishing, Inc. 2011 ISBN: 978-0-470-54137-1 These books are both available at the LTU Bookstore or for online purchase through their website http://lawrence-tech1.bkstore.com/bkstore/TextbookSelection.do?st=489
ADDITIONAL RESOURCES	LTU Online student resources: http://www.ltu.edu/ltuonline/ Tutoring – Academic Achievement Center: http://www.ltu.edu/aac/tutoring.asp Fall schedule (to be determined – see website for details) the following is typical: Monday – Thursday, 9:30am – 5:30pm Friday – 10:00am – 4:00pm
TECHNICAL SUPPORT	Technical support for using Blackboard is provided by the Helpdesk, 248.204.2330 or helpdesk@ltu.edu. Send the Help Desk a form detailing any issues by clicking here http://tinyurl.com/3yqrvne.

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 via email with your instructor. Each subsequent week starts on a Monday and ends on a Sunday. The last week of class is also a partial week which falls in the final exam week schedule. Suggested events for the semester may change as we proceed.

Dates	Modules	Topics / Readings	Assignments Due
Prior to Class Start Date and August 29 – September 2	Module 0	**Class Officially Begins – August 29th @ 12:10am** 1) Module Instructions & Information 2) View Course Guide Presentation 3) Syllabus Review (Purchase books)	Email verification Bb Discussion Board Take Bb quiz
Week 1 September 3 – September 9	Module 1	**Mastering 3ds Max Design - Chapter 1** Read book materials and complete exercises	**Quiz 1** Book exercises (64 pages)
Week 2 September 10 – September 16	Module 2	**Mastering 3ds Max Design - Chapter 2** Read book materials and complete exercises Last day to drop with refund (September 10)	**Quiz 2** Book exercises (49 pages)
Week 3 September 17 – September 23	Module 3	**Mastering 3ds Max Design - Chapter 3** Read book materials and complete exercises	**Quiz 3** Book exercises (61 pages) **Project 1 Due**
Week 4 September 24 – September 30	Module 4	**Mastering 3ds Max Design - Chapter 4** Read book materials and complete exercises	**Quiz 4** Book exercises (85 pages)
Week 5 October 1 – October 7	Module 5	**Mastering 3ds Max Design – Appendix B** **BIM Handbook - Preface & Chapter 1** **Autodesk Tutorial – Modeling building & cabinet** Read book materials and complete exercises	**Quiz 5** 3ds Max Design (33 pages) BIM Handbook (34 pages) Autodesk (235 pages)
Week 6 October 8 – October 14	Module 6	**Mastering 3ds Max Design - Chapter 6** **Autodesk Tutorial - Modeling a Revolving Door** **BIM Handbook - Chapter 2** Read book materials and complete exercises	**Quiz 6** 3ds Max Design (21 pages) BIM Handbook (65 pages) Autodesk (68 pages)
Week 7 October 15 – October 21	Module 7	**Mastering 3ds Max Design - Chapter 7** Read book materials and complete exercises	**Quiz 7** Book exercises (44 pages)
Week 8 October 22 – October 28	Module 8	Study and prepare for Mid-Term Exams Take both Written and Practical Exams	**Mid-Term Written Exam** **Mid-Term Practical Exam** Bb Course Evaluation Checking in discussion
Week 9 October 29 – November 4	Module 9	**BIM Handbook - Chapter 5** Read book materials and complete exercises	No quiz this week **Project 2 Due** Book exercises (68 pages)
Week 10 November 5 – November 11	Module 10	**Mastering 3ds Max Design - Chapter 8** Read book materials and complete exercises	**Quiz 8** Book exercises (53 pages)
Week 11 November 12 – November 18	Module 11	**Mastering 3ds Max Design - Chapter 9** Read book materials and complete exercises	**Quiz 9** Book exercises (81 pages)
Week 12 November 19 – November 25	Module 12	**Mastering 3ds Max Design - Chapter 10** **BIM Handbook - Chapter 8** Read book materials and complete exercises	**Quiz 10** 3ds Max Design (42 pages) BIM Handbook (38 pages)

Dates	Modules	Topics / Readings	Assignments Due
Week 13 November 26 – December 2	Module 13	**Mastering 3ds Max Design - Chapter 14** **BIM Handbook - Chapter 9** **(Case studies - specifically 9.1 & 9.2)** Read book materials and complete exercises Last day to withdraw from class (November 28)	**Quiz 11** 3ds Max Design (57 pages) BIM Handbook (34 pages)
Week 14 December 3 – December 9	Module 14	**Autodesk Tutorial – Materials and Mapping** Read book materials and complete exercises	**Project 3 Due** Autodesk (74 pages) Project 4 - selection
Week 15 December 10 – December 16	Module 15	Study and prepare for Final Exams Take Both Written and Practical Exams	**Final Written Exam** **Final Practical Exam**
Week 16 **Partial week** December 17 – December 21	Module 16	Final Project – Presentation submittal End of Final Exam Week Project Due by: 11:59pm (Friday – no late allowed)	**Final Project 4 Due** Bb Course Evaluation

I encourage all students to keep up with the schedule as described in this syllabus. We have a large volume of material to cover and only so much time to dedicate to the tasks at hand. It is very easy to fall behind, especially when dealing with high-end technology and 3-Dimensional ideas, so time management will be an important element in this course.

STUDENT EVALUATION

Your grades will be calculated with the percentage and point system detailed below. Note: The total points (shown in "My Grades" on blackboard) are not weighed evenly and grades are based on the following Grade Computation Criteria. For example, the (11) quizzes will score 1100 points (100 points each) and comprise 11% of the final grade, while the Final Project scores 15 points and comprises 10% of the final grade.

Grade Computation Criteria	Point Totals
3ds Max Design Textbook All textbook exercises combined (Total points – sum per module allotment)	11%
3ds Max Design and BIM Handbook Weekly Quizzes (1% for each quiz for 11 quizzes)	11%
Project 1 - Primitives Digital Documentation of class work	6%
Project 2 – Sculpture Project Digital Documentation of class work	14%
Project 3 – Sculpture Project (Rendered) Digital Documentation of class work	10%
Project 4 – Final Project Digital Documentation of class work	10%
Mid-Term Written Exam	8%
Mid-Term Practical Exam	10%
Final Written Exam	8%
Final Practical Exam	10%
Discussion board, evaluations, timely assignments and participation	2%
Total Grade	100%

Class Points	Letter Grade
96 and above	A
90 – 95	A-
87 – 89	B+
83 – 86	B
80 – 82	B-
77 – 79	C+
73 – 76	C
70 – 72	C-
61 – 69	D (Undergrad Only)
60 and below	E

EDUCATIONAL GOALS

To learn Autodesk's 3ds Max Design requires a significant amount of time and practical application. The goal of this course is to introduce the student to the basic skills required to produce architectural models and designs using 3ds Max Design and provide another dimension to BIM technology, understanding how it can affect the field of architecture as a whole. The books selected are designed to take the student through a series of exercises based on real world examples. While performing the prescribed tasks the student will become familiar with the tools, specific commands and interface menus. The student will develop efficient drawing techniques to aid in the methodology of digital architectural design.

EM2 - CATALOGUE DESCRIPTION
Introduction to the use of the computer as a three-dimensional aid in the design process related to architecture. Solid modeling, isometric and perspective generation, interactive viewing, batch processing, and application theory. Special focus on the generation and manipulation of three-dimensional solid models. Computer graphic color rendering, multi-media workstations, computer animation, and virtual reality. 3 hours credit.

REQUIRED MATERIALS
The student is required to have a functional computer with internet connection, access to the Blackboard website, and software supported by the LTU helpdesk and the College of Architecture and Design - specifically Autodesk's 3ds Max Design 2012 for class projects and Adobe Acrobat 9 to create PDF files. AutoCAD 2012 and Revit Architecture 2012 will also be helpful for minor activities. Purchase the required books for the class and a 2-button mouse with a wheel - using a track ball or sensor pad can be very inefficient when utilizing CAD programs. It may also be beneficial to have Microsoft PowerPoint and/or Adobe Photoshop for presentation purposes.

STUDENT LEARNING OBJECTIVES / OUTCOMES
1) Use 2D and 3D computer modeling and rendering techniques using 3ds Max Design.
2) Analyze the use of Building Information Modeling (BIM) technology as used in the architectural profession, interfacing with contractors and owners.
3) Produce custom digital models, with materials, to create architectural presentations.

PREREQUISITE SKILLS
Students must have a through understanding of the skills taught in the course EM1 (ARC 2813) including an introduction to BIM technology. An appreciation for file size and computer memory management is expected.

INSTRUCTIONAL METHODS AND COURSE ORGANIZATION

Blackboard Learning Environment – Blackboard at "my.ltu.edu" contains the syllabus, all assignments, narrated mini-lecture videos, written lecture notes, chapter questions, links to Web resources, and discussion forums. You will submit all assignments via Blackboard and are expected to participate in discussion topics as assigned. Please take time to familiarize yourself with the organization of the Blackboard site. You will want to check the site frequently for announcements reminding you of new resources and upcoming assignments.
Student/Instructor Conversations – Students can keep in touch with the instructor via e-mail, and Blackboard resources such as Pronto and Wimba if needed.
Self-Assessments – Self-assessment tools (quizzes) will help students measure their skills during the course.
Required Reading – Textbook chapters are to be read according to the schedule outlined in the Course Schedule.
Assignments – Textbook and Autodesk tutorials are required along with custom personal projects for creativity.

CLASS POLICIES AND EXPECTATIONS
I plan to offer you a valuable learning experience and expect us to work together to achieve this goal.
Here are some general expectations regarding this course:

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. The majority of the communication for this online course will be by email so you want to make sure that you check your email often!

On-line courses demand a great deal of reading and personal time management. Many assignments will take more than just a couple of hours, so start early in the week and assess the amount of work required, then complete the tasks at hand. Readings, discussion forum participation, and assignments **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.

All assignments must be submitted on schedule, via Blackboard and using Microsoft Office compatible software and/or required software. If you need to submit an assignment via email for any reason, please contact me in advance.

Assignments must be completed to an adequate standard to obtain a passing grade. Requirements for each assignment will be detailed in the weekly module's instruction PDF located in the module.

Be prepared to log into Blackboard at least once each day. Please focus your online correspondence within the appropriate Blackboard discussion forums so that your colleagues can learn from you. 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. **Completion of this evaluation process is required**.

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

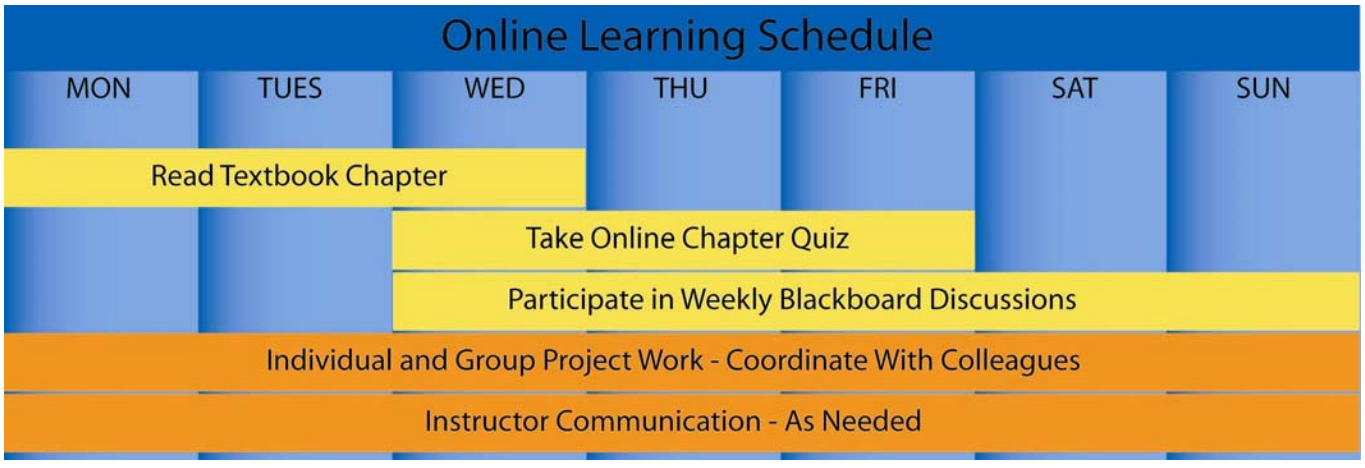
• I will be available to you via e-mail and will personally reply to your messages. (See Module 0 for specifics)
• Tutors are available at the Academic Achievement Center for face-to-face appointments, if necessary.
• I will maintain the Blackboard web site with current materials and will resolve any content-related problems promptly as they are reported to me.
• I will send out a weekly email update to all class members to guide upcoming work and remind you of assignment due dates.
• I will evaluate all posted assignments and may include individualized comments and suggestions located within the assignment posting. The green box signifies that it is waiting for my evaluation, a score will indicate completion.
• I will hold our personal written or verbal communications in confidence. I will not post any of your assignments for viewing by the class (unless it is of high quality) without requesting your approval in advance. (Submitting any project in this class becomes university property and you agree to the university's terms and conditions)
• I will treat all members of the class fairly and objectively.
• If any of these points need clarification, or should special circumstances arise that require my assistance, please contact me so that we can discuss the matter.

PRACTICAL GUIDELINES FOR CLASS LOAD EXPECTATIONS
A three-credit course generally requires **at least (10) ten hours per week** of time commitment. Here are some practical guidelines to help you schedule your time for this on-line course:

- The Fall Semester is 15 weeks (16 with finals week) and will require at least 150 hours of time commitment to successfully complete all readings, activities, assignments, and texts as described in this syllabus.
- You should reserve at least 10 hours per week to read the required textbook chapters and resources, participate in online discussions, review presentation materials, and work through online quizzes.
- You should organize your remaining time to roughly correspond with the point value of each major assignment. **Major projects could take concentrated effort before their due dates and time should be appropriated accordingly.**

These guidelines may not reflect the actual amount of outside time that you, as a unique individual with your own learning style, will need to complete the course requirements. The number of hours each week will vary based on assignment due dates, so please plan ahead to insure that you schedule your academic, work, and personal time effectively.

The following graphic can be used to guide you in planning your weekly course work to remain on schedule:



ASSIGNMENT DETAILS
Course assignments and evaluation criteria are detailed below. Please review these requirements carefully. See the section: Academic Resources / Assessment Guidelines for information about assessment of written and oral presentations.

Details for all assignments are shown below. Please note that Blackboard has been updated and the "Digital Drop Box" does not exist anymore. All assignments are submitted using the Blackboard "Assignments" or "SafeAssign" function. Some assignments are also posted to the Blackboard Discussion Forum for student comments.

Please make sure **when submitting assignments** that you actually click the **submit button** and not just the save button. You will know an assignment has been submitted successfully when you see a green box (with a check mark) appear in that assignment category when viewing the MyGrades area on Blackboard.

Assignments

TEXTBOOK WORK
Refer to the "Course Schedule" for the required readings and correct chapters to be discussed. Not all chapters will be covered. The procedural requirements for completing and submitting textbook work will be stated in the weekly class assignments and on Blackboard. The written criteria will have to be adhered to when submitting work and will be found in the "Theory" folder for that particular week.

CHAPTER QUESTIONS
The procedural requirements for completing and submitting chapter questions will be stated in the weekly class assignments on Blackboard. The written criteria will have to be adhered to when submitting work and will be found in the "Theory" folder for that particular week. The actual required quiz to be taken will be found in the "Practice" folder for that particular week.

LATE ASSIGNMENTS
Posting a late assignment will result in a grade reduction of 20% for that assignment. Once an assignment is late, it's late, so whether you turn it in one day or a month late, the same reduction will apply. The point is to turn in completed work. No assignment will be accepted after the last day of class - **Friday, December 21, 2012**. It will behoove the student to keep pace with the schedule. **Each module will expire and disappear when the next module is posted.** Following, the module will be re-activated and marked "late" for any late assignments submittals, if needed.

ASSIGNMENT SUBMISSIONS
Each week a module will be posted on Blackboard with all of the required information to be completed. Read all materials on Blackboard and in textbooks. **I will be using the 3ds Max Design "history" feature to make sure that students are submitting their own work. This tool allows me to view, by student initials and number, who worked on a file and when. If it is found that a student is submitting files worked on or belonging to someone else, that student will be reported to the university and be subject to the consequences deemed appropriate.**

Tests, Exams, and Online Participation

Midterm and Final Exams
The Midterm and Final Exams will be part-written and part-practical in order to evaluate the student's basic understanding of the material covered in the textbooks. The written exams will cover materials from both required texts and the practical exam will use exclusively 3ds Max design with minor AutoCAD activities.

Quizzes
Quizzes will be posted per the "Course Schedule" above and **will be accessible while the module is open**. Please be aware that each week's module will be posted from Monday at 12:10am till Sunday at 11:59pm. **The previous module will disappear when the next module is posted.** Special permission or a doctor's note will be required for any make-up quiz or exam. Quizzes will be open book and timed. They will be located in the "Practice" folder in its corresponding module. If you have computer trouble during a quiz and it locks you out or ends abruptly, then email me and I can re-set the quiz. This must be done prior to the module expiration time.

SYLLABUS ADDENDA
Please see the LTU Online "Current Students" web site http://www.ltu.edu/ltuonline/ for comprehensive information about Lawrence Tech's academic services, library services, student services, and academic integrity standards. The content of this web site is explicitly included as syllabus requirements.

The LTU Online "Current Students" web site also includes grading rubrics used by your instructor to evaluate written assignments, discussion forum participation, and group assignments. Please note that the SafeAssign anti-plagiarism product will be used for written assignments submitted for this course. Please see the instructions included on the LTU Online web site regarding the use of the SafeAssign product.

LTU Academic Honor Code:
Academic integrity and honesty are basic core values of Lawrence Technological University. In carrying out its academic mission, Lawrence Technological University, like all universities, depends on the honesty and integrity of its faculty, staff, and students, and for this reason every member of the Lawrence Technological University community is charged with upholding the Academic Honor Code. Actions that breach the Code erode the trust of those who look to universities for honest evaluations of academic work arrived at through honest processes. Violations may also cause individual harm in that reports of performance made to post-graduate schools, professional societies, and employers would inaccurately represent a student's progress. Lawrence Technological University is committed to creating an academic community that values both individual and collaborative efforts that promote learning and discovery. Such a community expects honesty and integrity in the work of all its members. The Academic Honor Code speaks to the work of individual students within the community. It should not be construed as arguing against the important collaborations that also occur among students on campus.

Students, faculty, and staff are expected to follow established standards of academic integrity and honesty. Academic misconduct entails dishonesty or deception in fulfilling academic requirements and includes but is not limited to cheating, plagiarism, or the furnishing of false information to the University or a University affiliates in matters related to academics. An affiliate of the University is any person, organization, or company who works in conjunction with Lawrence Technological University for the purposes of assisting students in fulfilling their academic requirements. It is therefore this institution's stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the University community have an obligation to report occurrences of dishonesty, each individual is principally responsible for his or her own conduct.
Full text of the LTU Academic Honor code can be found at: http://www.ltu.edu/currentstudents/honor_code.asp

Plagiarism:
From Lawrence Institute of Technology Catalog, pg 17:
"Academic dishonesty includes plagiarism, cheating, forgery, or other acts that deceive or defraud in regard to a student's own academic work or that of others. Questions of academic dishonesty are reviewed by the Dean of the School responsible for the courses in which they occur. When necessary, cases of academic dishonesty may be referred to the Student Discipline Committee. The usual penalty for academic dishonesty is failure in the course on the first offense and expulsion from the College on the second offense."

-- Full text adapted from the LTU College of Arts & Science documents. More information and full text is located at: http://www.ltu.edu/arts_sciences/humanities_ss_comm/plagiarism.asp

Retention of Student Work:
As noted in the University's undergraduate catalog, "all two and three dimensional drawings, as well as reports and other written studies submitted in satisfaction of any required or elective courses become the property of the University. When such work is kept, arrangements will be made for the student to receive suitable photographic copies as a record of his or her design work." Exemplary examples of student work may be retained for Open House, for accreditation visits, for Honors exhibitions, or as examples for future classes.

Leadership Transcripts Opportunity:
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.