Architecture 341 Building Technology II
Southern Illinois University at Carbondale

Course Description
Continuing study of materials and practices in document preparation for buildings using masonry and reinforced concrete construction. Investigation and use of local, state and federal codes regulating health and safety. Investigation of construction techniques relating to criteria of permanence, low maintenance and budget requirements. Produce a set of working drawings for a two-level, light commercial/industrial building.

Lecture: 3 hours. Laboratory: 5 hours.
Prerequisites: Arch 242 and major in Arch. Studies or consent of Arch. Studies coordinator.
Prerequisite to: Architecture 452

Instructor Information

Name: Norm Lach, Assistant Professor
Office: 416 Quigley Hall
Telephone Numbers: 453-1128 (Voice) 453-1129 (Fax)
1-618-684-3662 (Home)
Office Hours: 7:30 – 8:00, 12:00 – 1:00, 5:00 – 6:00, T & Th
Other hours by appointment
E-mail: nlach@siu.edu

Textbooks/Supplies


Computer disks, plotting paper, and other electronic and physical media.

Course Objectives
1. Simulate the typical office experience of design development through construction document phases for a reinforced concrete, precast concrete, and masonry commercial/industrial building.
2. Understand the principles, materials, methods and sustainable design issues for a reinforced concrete, precast concrete, and masonry building.
3. Research, analyze, and develop construction documents for a reinforced concrete, precast concrete, and masonry building.
4. Understand and integrate the basic principles of building service and environmental systems for a commercial/industrial building.
5. Understand the legal responsibilities with respect to public health, safety, and welfare regarding codes, accessibility, regulations, and standards for a commercial/industrial building.
6. Understand the basic principles of site and environmental conditions.
**Topical Outline**

I. Principles, Materials, Methods of Masonry, Concrete, and Precast Concrete Construction (25% of Time)
   A. Substructure
   B. Superstructure
   C. Building materials and finishes
   D. Building components, systems, equipment and/or services.
   E. Site components

II. Architectural Working Drawings (75% of Time)
   A. Plans
   B. Exterior elevations
   C. Sections
   D. Details
   E. Schedules and legends

**Expectations of Students**

1. Students are expected to actively participate in each session by asking and answering questions, exploring solutions by discussing notes, concepts, and ideas in an informal manner. During lecture and discussion periods, students may not use the computers to complete any work. Computers are to be used ONLY during the lab time.

2. Attendance at both the lecture and lab sessions is expected. Two absences will be excused. Each absence beyond two will result in a student’s final grade in the course being lowered by one letter grade.

3. During lab, students are expected to use only software appropriate to the goals of the course. Use of instant messaging programs, music sharing programs, etc. is NOT appropriate to the goals of the course and is not permitted.

4. Students are expected to research building materials in advance to prepare for the lab problems. Building samples and catalogs - *Sweet's* catalogs are available in Quigley 005 for this purpose. Internet access is available in Quigley 106 for using *Sweet's On-line.* Information gathered is to be used only for appropriate research activities or as described in class. Copying information, except when students have been told to make use of files or other media for class purposes, is considered plagiarism.

5. Students are expected to submit all projects on time. Only projects submitted at the specified time and place will be considered for full credit. Projects will be accepted up to one (1) day late, subject to a penalty of ten (10) grade points. For purposes of computing the late penalty all days of the week are used, including Saturday & Sunday. Projects more than one (1) day late will not be accepted, resulting in the student receiving a zero (0) on that project. **You must ask the secretary to initial and date/time stamp any project submitted outside regular class hours, unless given directly to the instructor.**

6. Students are expected to comply fully with the regulations posted in the computer labs. Students are also expected to comply fully with the policies of Southern Illinois University Carbondale.

7. Disable cell phones, paging devices, etc. so as not to disrupt class. Please arrive on time so as not to disrupt class.

8. Students are expected to keep all work areas clean. No food or drink will be permitted at any time in Quigley 106.

9. Students are expected to work in class during the scheduled time, in addition to work completed outside class. Students who prefer to work outside class will need to learn to work in class on the assigned projects during the scheduled time. This is in keeping with the practices of a professional office, and will help the student to develop good work habits – habits that are expected in an architect's office.

10. A break is a maximum of ten (10) minutes long. Students are entitled to two (2) breaks during each lab session. The two breaks may be combined into one twenty (20) minute break taken during the lab. Breaks can be taken at any time during the lab session, unless students begin to disappear for extended periods of time. If that occurs, break time will be dictated for all students at a specified time during the lab session.
11. The use of any tobacco product is forbidden in class. This includes tobacco in all of its forms and extends to all rooms and spaces in which any portion of the class is conducted, as well as those spaces necessary to access classroom areas. It also includes any field trip or outside activity that is a part of the class’ activities. Failing to comply with this class policy will be considered a violation of the Student Conduct Code of Southern Illinois University Carbondale, article II, section 4. Students are directed to article III, section B, which states that the punishment shall be: “A failing grade (F) may be assigned for the course in which the violation occurred.”

12. No visitors are permitted in class without the advance consent of the instructor.

13. Unless work is assigned as a team, each student shall do his or her own work. Please review the Student Conduct Code of Southern Illinois University Carbondale – especially those areas related to University policy regarding acts of academic dishonesty and the definition of plagiarism.

14. Drawings, details, articles, and files or media found on web sites, CD ROMs, other electronic media, or from students who have previously completed all or a portion of this course MAY NOT BE USED FOR ANY PURPOSE IN THIS CLASS. The instructor will provide students with appropriate materials or with references to where materials may be located when it is permissible to access such materials. Using the work of another student for any purpose is NEVER PERMITTED and will always be regarded as an act of academic dishonesty.

**Plagiarism**

Computer software makes it very easy to copy information from one file to another. For this reason, this additional information is provided to help students understand what constitutes plagiarism in ARC 341. In addition to the description given in the Student Conduct Code (http://www.siuc.edu/~policies/policies/conduct.html), these activities are counted as plagiarism:

- Permitting your work to be used by another student even as a review example,
- Granting access to your CAD file,
- Reviewing the work of another person except as provided in class,
- Copying any portion of another file into your ARC 341 solution except for those files provided in class for this purpose, and
- Presenting as your own work any solution that is not created by you.

If there any doubts about whether to use a file, portion of a file, or other information as part of your class project, ASK before doing it!

Students who are found to have committed plagiarism in ARC 341 will fail the class.

**Emergency Procedures**

Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings on campus, available on the BERT’s website at www.bert.siu.edu, Department of Public Safety’s website www.dps.siu.edu (disaster drop down) and in the Emergency Response Guidelines pamphlet. Know how to respond to each type of emergency.

Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency. The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.

**Coursework**

Architecture 341 will consist of completing design development research and construction drawings on an assigned building. The drawings will be representative of typical drawings completed in an architect's office on a project of this size, but the assignments will not form a complete set of drawings for the building. All students must complete class projects using AutoCAD software. Other CAD software is not available in the computer labs.
Original plot media are required of all students with each project. The costs of plots will be borne by the student. Photocopies are not acceptable. Students must also submit an electronic copy of each project in AutoCAD format. The process for providing these files to the instructor using the department network will be reviewed in class.

There will be only two exams, one at midterm and the other during finals week. Both exams will be comprehensive in nature. Exams in this class are difficult. Some of the questions used on the exams are taken directly from past NCARB Architect's Registration Exams. Others are taken from lecture and the lab problem. Because of the nature of the three building technology classes at SIUC, the exams in Arch. 341 build on knowledge from Architecture 242: Building Technology I.

**Grading**

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<td>Four projects, each at</td>
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<td>Midterm exam:</td>
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<td>Final exam:</td>
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<td><strong>TOTAL</strong></td>
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Projects may consist of several submissions as part of one course grade as described in class handouts provided with each project.

Grade Scale:  

- A = 100 - 92
- B = 91 - 83
- C = 82 - 74
- D = 73 - 65
- F = 64 & below.

Individual grades will not be curved in this class. If a curved grading method is used, it will be applied at the end of the course only.

The grade of INC will not be assigned unless all the requirements of the University and the Department are met. Those requirements include: 1) an extraordinary circumstance outside the student’s control that interfered with completion of the course, 2) the student was passing the course at the time the INC grade is issued, and 3) an approved INC grade agreement has been executed between the student and the instructor. Students given an INC may not enroll in any course for which this course is a prerequisite until the INC has been satisfied.
Syllabus Attachment

Fall 2016

Provost Website: http://pvcaaw.siu.edu/

SAFETY AWARENESS FACTS AND EDUCATION
Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here: http://safe.siu.edu

SALUKI CARES
The purpose of Saluki Cares is to develop, facilitate and coordinate a university-wide program of care and support for students in any type of distress—physical, emotional, financial, or personal. By working closely with faculty, staff, students and their families, SIU will continue to display a culture of care and demonstrate to our students and their families that they are an important part of the community. For Information on Salukí Cares: call (618) 453-1492, email siucares@siu.edu, or http://salukicares.siu.edu/index.html

SIU'S EARLY WARNING INTERVENTION PROGRAM (EWIP)
Students enrolled in courses participating in SIU's Early Warning Intervention Program might be contacted by University staff during a semester. More information can be found at the Core Curriculum's Overview webpage: http://corecurriculum.siu.edu/program-overview/

EMERGENCY PROCEDURES
We ask that you become familiar with Emergency Preparedness @ SIU. Emergency response information is available on posters in buildings on campus, on the Emergency Preparedness @ SIU website, and through text and email alerts. To register for alerts visit: http://emergency.siu.edu/

INCLUSIVE EXCELLENCE
SIU contains people from all walks of life, from many different cultures and sub-cultures, and representing all strata of society, nationalities, ethnicities, lifestyles, and affiliations. Learning and working with people who differ is an important part of education as well as an essential preparation for any career. For more information visit: http://www.inclusiveexcellence.siu.edu/

LEARNING AND SUPPORT SERVICES
Help is within reach. Learning support services offers free tutoring on campus and math labs. To find more information please visit the Center for Learning and Support Services website: Tutoring: http://tutoring.siu.edu/
Math Labs: http://math.siu.edu/courses/course-help.php

WRITING CENTER
The Writing Center offers free tutoring services to all SIU students and faculty. To find a Center or Schedule an appointment please visit: http://write.siu.edu/

AFFIRMATIVE ACTION & EQUAL OPPORTUNITY
Our office's main focus is to ensure that the university complies with federal and state equity policies and handles reporting and investigating of discrimination cases. For more information visit: http://diversity.siu.edu/

MILITARY COMMUNITY
There are complexities of being a member of the military community and also a student. Drill schedules, calls to active duty, complications with GI Bill disbursement, and other unforeseen military and veteran related developments can complicate academic life. If you are a member of the military community and in need of accommodations please visit Veterans Services at http://veterans.siu.edu/

Additional Resources:
ADVISEMENT: http://adviserent.siu.edu/
SIU ONLINE: http://onlinesiu.edu/
SALUKINET: https://salukinet.siu.edu/
MORRIS LIBRARY HOURS: http://www.lib.siu.edu/
QUIGLEY HALL EMERGENCY RESPONSE PROCEDURES

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If an evacuation of Quigley Hall is required during an emergency, ALL School of Architecture students, faculty, and staff (from all three programs) are to gather ASAP after exiting in the grassed area east of the Quigley Courtyard and covered walkway area to determine if there are people unaccounted for at that particular time. There are four SoA faculty members that are part of the SIUC Quigley Hall BERT Team (Frisch, Kidd, Wojnarowski, and Northland) who will be facilitating the necessary emergency procedures. There are **BERT Posters** located in numerous public areas throughout Quigley with Quigley Team emergency phone numbers.

**Do not hesitate to call 911** if you have any sense of emergency and there isn’t a faculty or staff person available to immediately assist – **911 Staff** are highly qualified and prepared professionals to make a response decision and to give you advice over the phone.

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<tr>
<th>QUIGLEY HALL EMERGENCY</th>
<th>RESPONSE MEETING AREAS</th>
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<tr>
<td><strong>PROGRAM</strong></td>
<td><strong>AREA</strong></td>
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<tr>
<td>Food and Nutrition</td>
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<td>Child Development Laboratory</td>
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<td><strong>School of Architecture</strong></td>
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<td>College of Education - Pre-School</td>
<td>5</td>
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<tr>
<td>General Classrooms &amp; Auditorium</td>
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