The University of Southern Mississippi
College of Science & Technology – School of Construction

BCT 336 – Building Systems
II H003-Spring
2014

COURSE SYLLABUS

Instructor
☐ Sandeep Langar, Ph.D., LEED AP BD+C
☐ 118 College Drive, Hattiesburg, MS 39406
☐ TEC 245 (Bobby Chain Technology Center)
☐ Sandeep.Langar@usm.edu
☐ Phone: US-540-808-5281

Teaching Assistant
☐ Ms. Mitzi Ann Carriker
☐ mitzi.carriker@eagles.usm.edu

Office Hours
☐ Schedule an appointment via email

Drop Date
January 28, 2014, is the last day to drop and receive 100% financial refund. February 24, 2014 is the last day to drop the class without Academic Penalty. (The information can be accessed at: http://www.usm.edu/registrar/spring-2014-academic-calendar).

Prerequisite
☐ The student should have approval from the instructor for record.

Credit Hours
3 hours

Course Description
The course enables you to understand various buildings systems and improve knowledge base for the following areas:
1) Speaking the language of construction
2) Comprehending and analyzing construction systems
3) Managing and operating in a team
Course Overview
This online course is designed to introduce and familiarize you with various building systems associated with a facility. This in turn prepares you for future courses such as estimating and scheduling.

Course Outcomes
The major outcomes for the course are:
1) Comprehensive understanding of the means and methods associated with construction.
2) Familiarize you with building systems and understand the impacts of externalities like constructability, environment, etc.
3) Critically analyze and evaluate building systems and the trade-offs associated with its use.

Student Learning Outcomes
Upon completion of this course you shall be able to:
1) Identify sources of information on building systems and evaluate their credibility, validity, and reliability.
2) Identify and describe the proper use of construction materials and methods from multiple CSI divisions.
3) Interpret drawing document details relevant to a construction project.
4) Receive, evaluate, validate, and use information provided by other teams.
5) Evaluate the technological, human, ecological, and economic performance of building systems.
6) Communicate information orally and graphically relative to the quality, quantity, and cost of materials and schedule of activities necessary to complete a building project or portion of a project.
7) Understand various building systems.
8) Identify actions that downstream stakeholders can take to improve the value of a building project in the construction and operations phases.
9) Make recommendations of a specific course of action based on tradeoffs among likely impacts and justify those recommendations.
10) Document recommendations in a professional fashion appropriate for your audience.

Instructional Strategies
The online course aims toward establishing critical thinking and intellectual engagement among the participants. In order to achieve these results, class discussions, supplemental readings, class slides, and team-based assessments will be the main methods used.

Course Communication
The following protocols are established for communication with the instructor and any email not complying with the established protocols shall not be responded to:
1) All emails shall be sent from a USM email address.
2) All emails should have a subject which should start with “BCT 336: Subject.”
3) Please provide instructor with 48 hours of response time, for all emails.
Finally, the instructor realizes that things happen in real life and is more than willing to work with the students. It is the responsibility of the students to report any event for which they feel is affecting their performance in the course, by sending an email to the instructor.

**Required Text(s) and Readings**


2) Additional supplementary readings shall be posted on blackboard and students shall be duly notified.

**Technology Requirements**

The major requirement for this course is proficiency in Microsoft Office Suite (Microsoft Office Word, Microsoft Office PowerPoint, and Microsoft Office Excel).

**Class Procedures and Requirements**

1) The class will be taught through a series of online lectures. Supplementary reading material shall be posted on the blackboard to help students gain a deeper understanding of the topics taught. It is highly recommended that students review the supplementary materials and class slides in detail and schedule an appointment when in doubt.

2) No grade changes are allowed in the course, unless there is an error on the part of the instructor. It is the duty of the students to clarify the aims and objectives of the assignment by meeting with the professor in advance.

3) Students will be tested on their understanding of the course by means of four quizzes, and they shall cover all the material that has been taught until then. It is the responsibility of the students to attend regularly and review the material up to that point.

4) All the team assignments shall be submitted in a professional manner. Every assignment shall have a due date and a time by which they need to be submitted electronically. No extension shall be granted. You are going to be a future construction professional and need to cultivate the attitude of a responsible bidder that follows the bid-box standard. It is also highly recommended that the student keep proof of the submission. In case you are unable to submit the assignment due to technical difficulties, feel free to email me the assignment. But then the assignment should be in my inbox before the scheduled time. In the case it is submitted even a minute late, it shall not be entertained.

5) The final exam shall cover all the materials which have been taught.
Class Participation Policy

☐ Please be an active participant.

☐ The course will be using Blackboard Collaborate for online classes.

☐ Blackboard IM (Instant Messenger) will be used for online communication along with emails. In order to download the tool, please visit your account on Blackboard→BCT336- H002→Blackboard IM (it should be on the left side of your page).
  o After locating Blackboard IM click on it.
  o A new page will open with the title “Wimba Pronto.”
  o Click on “Wimba Pronto.”
  o Another page should open with the title “Blackboard collaborate.”
  o Follow the instructions (three steps) on the page, starting with creating the account, downloading the file, and then installing it on your computer.
  o Once you have done so, access the Blackboard IM.

You can also find detailed instructions for installing the Blackboard IM also known as “Wimba Pronto” by following the subsequent path:
Blackboard→BCT336-H002→Course Content Home→Getting Started→“Student's guide to Blackboard IM (formally Wimba Pronto)”

☐ Students are expected to familiarize themselves with academic honesty policies articulated in the USM Undergraduate Bulletin.

☐ On-line class sessions will involve lecture/discussion, as per the class requirements. Students are encouraged to come to the class prepared to discuss the assigned readings/slides posted. In case any student has a differentiating opinion from the rest of the class, please state your opinion in a manner that is professional and does not hurt the sentiments or esteem of your peers. The main aim of discussion is to enhance engagement within the class and encourage creative ideas. The instructor welcomes all kinds of ideas as long as they are relevant to the issue that is being discussed.

☐ Due to student privacy, no final course or exam grades shall be provided either by email or over the phone.
Evaluation Criteria

The following percentages are with respect to the overall grade:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Percentage of Overall Grade</th>
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</thead>
<tbody>
<tr>
<td>Team Assignment # 1 (Team performance)</td>
<td>10%</td>
</tr>
<tr>
<td>Team Assignment # 2 (System scoping &amp; Technical performance)</td>
<td>30%</td>
</tr>
<tr>
<td>Actively reviewing the documents on blackboard&lt;sup&gt;®&lt;/sup&gt;</td>
<td>10%</td>
</tr>
<tr>
<td><em>(Participation in weekly online classes is NOT mandatory but will generate additional bonus points for the participants).</em></td>
<td></td>
</tr>
<tr>
<td>Quiz # 1</td>
<td>5%</td>
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<tr>
<td>Quiz # 2</td>
<td>5%</td>
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<tr>
<td>Quiz # 3</td>
<td>5%</td>
</tr>
<tr>
<td>Quiz # 4</td>
<td>5%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
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</tbody>
</table>

All team assignments shall also incorporate peer review, and it shall be a part of the overall assigned grade. For every team assignment, each team member will grade other members.

Grading Scale

- A  90-
  100
- B  80-89
- C  70-79
- D  60-69
- F  Less than 60

Late Assignments or Projects

No late assignment will be acceptable, without a justified or documented reason. It is the responsibility of the student to submit the assignment on-time and failure to do so can severely affect grades.

Academic Honesty

The following is from the USM Undergraduate Bulletin:

“*When cheating is discovered, the faculty member may give the student an F on the work involved or in the course. If further disciplinary action is deemed appropriate, the student should be reported to the Dean of Students. In addition to being a violation of academic honesty, cheating violates the Code of Student Conduct and may be grounds for probation, suspension, and/or expulsion. Students on disciplinary suspension may not enroll in any courses offered by The University of Southern Mississippi.*”

Students **must email the Teaching Assistant, within the first week of classes, using the school email**
address, stating that they understand USM academic honesty policy, and also understand that if
they do not uphold the standards of academic honesty, the instructor will enforce all applicable punishment.

**ADA Policy**

If a student has a disability that qualifies under the Americans with Disabilities Act (ADA) and requires accommodations, he/she should contact the Office for Disability Accommodations (ODA) for information on appropriate policies and procedures. Disabilities covered by ADA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact ODA if they are not certain whether a medical condition/disability qualifies.

**Address:**
The University of Southern Mississippi,  
Office for Disability Accommodations,  
118 College Dr. #8586, Hattiesburg, MS 3940-0001

**Voice Telephone:**  
(601)-266-5024 or (228)-214-3232

**Fax:**  
(601)266-6035

Individuals with hearing impairments can contact ODA using the Mississippi Relay Service at 1-800-582-2233 (TTY), or email Ms. Suzy Hebert at [Suzanne.Hebert@usm.edu](mailto:Suzanne.Hebert@usm.edu).
## Class Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction and syllabus</td>
<td>Syllabus</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Team Building</td>
<td>Supplementary readings to be posted on blackboard</td>
<td>Formation of teams</td>
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<tr>
<td>3</td>
<td>System Scoping</td>
<td></td>
<td>Introduction to team assignment # 1</td>
</tr>
<tr>
<td>4</td>
<td>Technological Performance</td>
<td>Quiz 1</td>
<td></td>
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<tr>
<td>5</td>
<td>Human Performance</td>
<td>Supplementary readings to be posted on blackboard</td>
<td></td>
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<tr>
<td>6</td>
<td>Ecological Performance</td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>Economic Performance</td>
<td>Quiz 2</td>
<td>Team assignment # 1 due</td>
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<tr>
<td>8</td>
<td>Foundations</td>
<td>Supplementary readings to be posted on blackboard</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Concrete construction</td>
<td></td>
<td>Introduction to team assignment # 2</td>
</tr>
<tr>
<td>10</td>
<td>Wooden construction</td>
<td>Quiz 3</td>
<td></td>
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<tr>
<td>11</td>
<td>Steel</td>
<td>Supplementary readings to be posted on blackboard</td>
<td></td>
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<tr>
<td>12</td>
<td>Exterior skin</td>
<td></td>
<td></td>
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<tr>
<td>13</td>
<td>Roofing and finishes</td>
<td>Supplementary readings to be posted on blackboard</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Interior finishes, doors, and</td>
<td>Quiz 4</td>
<td>Team assignment # 2 due</td>
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<tr>
<td></td>
<td>windows</td>
<td></td>
<td></td>
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<tr>
<td>15</td>
<td>Final</td>
<td></td>
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**Note: Instructor reserves the right to change the schedule of this course as appropriate to course**