COURSE SYLLABUS**SYLLABUS**  
**COM385: Systems Design**

Course Description

Students will apply the concepts of systems analysis and design in a comprehensive software project. Students will use the concepts and skill sets acquired in the previous classes to design and build an IT solution in a real world business scenario. The final project will require students to work cooperatively in designing and implementing all aspects of an IT system. The emphasis is on current system development methodologies.

General Course Information

|  |  |
| --- | --- |
| Number of Units/Weeks | 04/10 |
| #Hours Lecture/#Hours Laboratory/#Hours Homework | 40/00/80 |
| Prerequisite(s) | None |
| Co-requisites (s) | None |
| Course Developer(s) | Leticia Rabor, M.S. |
| Date Approved / Last Review | May 2017 / May 2017 |

Learning Outcomes

* (CLO1) Describe the various software development methodologies including the strengths and weaknesses of each.
* (CLO2) Demonstrate effective oral communication when working in development teams.
* (CLO3) Produce clear system, user, and security documentation for a software system.
* (CLO4) Work effectively in teams in designing and implementing software systems.
* (CLO5) Design and implement a comprehensive information system using current techniques, skills and tools.

Instructional Methods Employed in this Course

* Lecture and reading assignments
* Hands-on exercises and labs
* Research
* Student presentations
* Practical application of theory and skills in authentic projects
* Build on prior knowledge and experience of students to enhance richness of class activities

Information Resources for this Course

 **Textbook**  
John Satzinger, Robert Jackson, and Stephen Ford. Systems Analysis and Design In A Changing World, 7th edition. Cengage Learning, Boston, MA, 2016. ISBN-13: 978-1-305-11720-4.

**Student Companion Site**

Cengage Brain

[http://www.cengagebrain.com/](http://www.cengagebrain.com/cgi-wadsworth/course_products_wp.pl?fid=M20b&product_isbn_issn=9781305117204&token=41B5CC45F6F6C03DE360A06A85340CDB663E202CB0E66E7114A8FBA395FA5F7DE3D7040D20E3D8D0E3201606520B24D3)

 **Other Materials**  
Coleman College. The College Writer’s Guide. San Diego: Coleman College, 2009.

 **Web Site Readings**  
 Software Design Tutorials

<http://www.smartdraw.com/tutorials/software-uml/uml.htm>

May 23, 2012

Object Management Group

<http://www.omg.org>

May 23, 2012

Table/Topics & Assignments

**Types of Assignments:**

Lecture -   
Considered Lecture Hours

**Classroom Discussion -**   
Considered Lecture Hours

**In Class Critique -**   
Considered Lecture Hours

**Delivering Oral Presentations -**   
Considered Lecture Hours

**In Class (IC) Exercise -**   
Considered Lecture Hours

**Reading -** +-

Considered Homework (HW), work done outside of class

**WebClass lesson (non-online courses) -**   
Considered HW, work done outside of class

**Lab Work -**   
Considered Lab Hours

**Quiz, Midterm or Final -**   
Considered Lecture Hours

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Week 1 |  |  |  |  |  |  |
| Type | Topic/Description | LEC Hours | LAB Hours | HW Hours | Point Value | Due |
| LEC 1A | Overview of Systems Analysis & Design;  The Role of the Systems Analysis | 4 |  |  |  |  |
| HW 1A | Read Chapter 1 (45 pages) & Read Online Chapter A (18 pages). Evaluated by HW 1B. |  |  | 6.3 |  |  |
| HW 1B | Project 1 |  |  | 3 | 50 | Due Week 2 |
| Total Week 1 |  | 4 | 0 | 9.3 | 50 |  |
| Week 2 |  |  |  |  |  |  |
| Type | Topic/Description | LEC Hours | LAB Hours | HW Hours | Point Value | Due |
| LEC 2A | Investigating System Requirements | 4 |  |  |  |  |
| HW 2A | Read Chapter 2 (31 pages). Evaluation by HW 2B  Look Ahead: Read Ch. 11 pgs. 325-335 (10 pages) |  |  | 6.7 |  |  |
| HW 2B | Project 2 |  |  | 5 | 50 | Due Week 3 |
| Total Week 2 |  | 4 | 0 | 11.7 | 50 |  |
| Week 3 |  |  |  |  |  |  |
| Type | Topic/Description | LEC Hours | LAB Hours | HW Hours | Point Value | Due |
| LEC 3A | Identifying User Stories and Use Cases | 4 |  |  |  |  |
| HW 3A | Read Chapter 3 (23 pages). Evaluation by HW 3B. |  |  | 2.3 |  |  |
| HW 3B | Project 3 |  |  | 6 | 100 | Due Week 4 |
| Total Week 3 |  | 6 | 0 | 8.3 | 100 |  |
| Week 4 |  |  |  |  |  |  |
| Type | Topic/Description | LEC Hours | LAB Hours | HW Hours | Point Value | Due |
| LEC 4A | Domain Modeling;  The Traditional Approach to Requirements | 3 |  |  |  |  |
| HW 4A | Read Chapter 4 (36 pages), Read OL B (33 pages). Evaluation by HW 4B |  |  | 6.9 |  |  |
| HW 4B | Project 4 |  |  | 5 | 100 | Due Week 5 |
| Total Week 4 |  | 6 | 4 | 11.9 | 100 |  |
| Week 5 |  |  |  |  |  |  |
| Type | Topic/Description | LEC Hours | LAB Hours | HW Hours | Point Value | Due |
| LEC 5A | Foundations to Systems Design | 2 |  |  |  |  |
| HW 5A | Read Chapter 6  (26 pages). Evaluated by HW 5B |  |  | 2.6 |  |  |
| EXAM 5A | Midterm Exam Chapters 1-4, 6, 811, 14; Online Chapters A-B | 2 |  |  | 150 |  |
| HW 5B | Project 5 |  |  | 6 | 100 | Due Week 6 |
| Total Week 5 |  | 6 | 4 | 8.6 | 250 |  |
| Week 6 |  |  |  |  |  |  |
| Type | Topic/Description | LEC Hours | LAB Hours | HW Hours | Point Value | Due |
| LEC 6A | Designing the User Interface | 4 |  |  |  |  |
| HW 6A | Read Chapter 8 (38 pages). Evaluated by HW 6B. |  |  | 3.8 |  |  |
| HW 6B | Project 6 |  |  | 5 | 100 | Due Week 7 |
| Total Week 6 |  | 4 | 0 | 8.8 | 100 |  |
| Week 7 |  |  |  |  |  |  |
| Type | Topic/Description | LEC Hours | LAB Hours | HW Hours | Point Value | Due |
| LEC 7A | Designing the Database | 4 |  |  |  |  |
| HW 7A | Read Chapter 9 (35 pages). Evaluated by HW 7B. |  |  | 3.5 |  |  |
| HW 7B | Project 7 |  |  | 5 | 50 | Due Week 8 |
| Total Week 7 |  | 4 | 0 | 8.5 | 50 |  |
| Week 8 |  |  |  |  |  |  |
| Type | Topic/Description | LEC Hours | LAB Hours | HW Hours | Point Value | Due |
| LEC 8A | Approaches to System Development | 4 |  |  |  |  |
| HW 8A | Read Chapter 10 (31 pages). Evaluated by HW 8B |  |  | 3.1 |  |  |
| HW 8B | Project 8 |  |  | 5 | 50 | Week 10 |
| Total Week 8 |  | 4 | 0 | 8.1 | 50 |  |
| Week 9 |  |  |  |  |  |  |
| Type | Topic/Description | LEC Hours | LAB Hours | HW Hours | Point Value | Due |
| LEC 9A | Project Planning and Project Management | 4 |  |  |  |  |
| HW 9A | Read Chapter 11 pgs. 335-356 (21 pages). Evaluated by HW9B. |  |  | 2.1 |  |  |
| HW 9B | Final Preparation Review Questions |  |  | 3 | 50 |  |
| Total Week 9 |  | 4 | 0 | 5.1 | 50 |  |
| Week 10 |  |  |  |  |  |  |
| Type | Topic/Description | LEC Hours | LAB Hours | HW Hours | Point Value | Due |
| LEC 10A | Deploying the New System | 2 |  |  |  |  |
| EXAM 10A | Final Exam | 1 |  |  | 150 |  |
| HW 10A | Present and Explain System | 1 |  |  | 100 |  |
| Total Week 10 |  | 4 | 0 | 0 | 250 |  |

Course Hours Summary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Week | Topic | LEC LEC | LAB LAB | HW HW Hours |
| 1 | Overview of Systems Analysis & Design, The Role of the Systems Analysis | 4 | 0 | 9.3 |
| 2 | Investigating System Requirements | 4 | 0 | 11.7 |
| 3 | Identifying User Stories and Use Cases | 4 | 0 | 8.3 |
| 4 | Domain Modeling, The Traditional Approach to Requirements | 4 | 0 | 11.9 |
| 5 | Foundations for Systems Design | 4 | 0 | 8.6 |
| 6 | Designing the User Interface | 4 | 0 | 8.8 |
| 7 | Designing the Database | 4 | 0 | 8.5 |
| 8 | Approaches to System Development | 4 | 0 | 8.1 |
| 9 | Project Planning and Project Management | 4 | 0 | 5.1 |
| 10 | Deploying the New System | 4 | 0 | 0 |
| Total |  | 40 | 0 | 80.3 |

Table/Point Breakdown

|  |  |  |  |
| --- | --- | --- | --- |
| Week | Assignment | Possible Points | Percent  of Grade |
| 1 | Project 1 | 50 | 5% |
| 2 | Project 2 | 50 | 5% |
| 3 | Project 3 | 50 | 5% |
| 4 | Project 4 | 100 | 10% |
| 5 | Project 5 | 100 | 10% |
| 5 | Midterm Examination | 150 | 15% |
| 6 | Project 6 | 100 | 10% |
| 7 | Project 7 | 100 | 10% |
| 8 | Project 8 | 50 | 5% |
| 9 | Final Preparation Review Questions | 25 | 2.5% |
| 10 | Final Examination | 150 | 15% |
| 10 | System Presentation | 75 | 7.5% |
| Total |  | 1000 | 100% |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Your Grades for this Course** | | |  |  |  |  |
| Your final grade for this course will be based on an assessment by the Instructor of your performance on a number of course activities, which may include objective tests, classroom exercises, laboratory demonstrations, project papers, or other types of activities. The chart below indicates in what activities you will engage, how many possible points can be earned for each activity, and the percentage of your final grade that will be accounted for by each activity. | | | | | | |
| Students in this course should be graded following Coleman University assessment practices and policies. A point system is used in the University to indicate student performance on various required activities or projects. For this course, it is recommended that points be distributed as follows: | | | | | | |
| **Coleman University Grade Assignment Policy:** | | | |  |  |  |
|  | **Percent** | | **Letter Grade** | **Grade Points** |  |  |
|  | 94-100 | | A | 4 |  |  |
|  | 90-93 | | A- | 3.67 |  |  |
|  | 87-89 | | B+ | 3.33 |  |  |
|  | 84-86 | | B | 3 |  |  |
|  | 80-83 | | B- | 2.67 |  |  |
|  | 77-79 | | C+ | 2.33 |  |  |
|  | 74-76 | | C | 2 |  |  |
|  | 70-73 | | C- | 1.67 |  |  |
|  | 67-69 | | D+ | 1.33 |  |  |
|  | 64-66 | | D | 1 |  |  |
|  | 60-63 | | D- | 0.67 |  |  |
|  | N/A | | INC | 0 |  |  |
|  | N/A | | W | 0 |  |  |
|  | 60 or above | | CR | 0 |  |  |
|  | 59 or below | | NC | 0 |  |  |
|  | N/A | | I | 0 |  |  |
|  | N/A | | W | 0 |  |  |
|  | N/A | | AU | 0 |  |  |
|  | N/A | | TR | 0 |  |  |
|  | N/A | | WV | 0 |  |  |
|  |  |  |  |  |  |  |
|  | **Legend** | | |  |  |  |
|  | CR = Credit | NC = No Credit | |  |  |  |
|  | I = Incomplete | W = Course Withdrawal | |  |  |  |
|  | AU = Audit | TR = Transfer Credit | |  |  |  |
|  | WV = Waiver |  | |  |  |  |
|  |  |  |  |  |  |  |
| **Academic Accommodation / Adjustment Policy:** | | | | | | |
| In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA), Coleman University offers accommodations to students with documented physical, psychological, and/or cognitive disabilities. Coleman University will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to offer equal educational opportunities to qualified disabled individuals. | | | | | | |
| To qualify for an academic accommodation under ADA, the student must provide adequate documentation of a disability. Students seeking academic accommodations should contact the campus ADA Coordinator at 858-966-3953 or via email at ada@coleman.edu. The ADA Coordinator will review the documentation provided and verify ADA coverage. Students covered under ADA must meet with the ADA Coordinator at the beginning of every term to determine the appropriate academic accommodations. Failing to meet with the ADA Coordinator at the beginning of every term may impact the availability of accommodations. | | | | | | |
|  |  |  |  |  |  |  |
| After the academic accommodations have been determined, the students’ instructors will be notified by the ADA Coordinator. If any problems or concerns regarding the provision of accommodations occur, the student must inform the ADA Coordinator. If the student feels accommodation is not being made appropriately, the student may follow the published Student Grievance Procedures. | | | | | | |