Course Title - System Analysis and Design
Course Prefix and Number - ITSE 1350
Department - Computer Science
Course Type: (check one)
□ Academic General Education Course (from ACGM - but not in WCJC Core)
□ Academic WCJC Core Course
☒ WECM course (This course is a Special Topics or Unique Needs Course: Y or N)

Semester Credit Hours #: Lecture hours#: Lab/other hours #: 3:2:2
EQUATED Pay hours for course: 3

Course Catalog Description - Introduction to the planning, design, and construction of computer information systems using the systems development life cycle and other appropriate design tools.

Prerequisites/Corequisites - ITSE 1329

Approvals - the contents of this document have been reviewed and are found to be accurate.

Prepared by
Stephanie Dees

Signature
Stephanie Dees

Date 11/25/2009

Department Head
Stephanie Dees

Signature
Stephanie Dees

Date 11/25/2009

Division Chair
Stephanie Dees

Signature
Stephanie Dees

Date 11/25/2009

Vice President of Instruction or Dean of Vocational Instruction

Signature

Date 12-1-09
I. Topical Outline – Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, clinical or other non lecture instruction):

<table>
<thead>
<tr>
<th>Topics Covered:</th>
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<tr>
<td>Use system design tools; identify phases of the system design life cycle; develop a prototype; compare and contrast project management tools; and develop documentation for the system life cycle.</td>
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II. Course Learning Outcomes

This course incorporates the National Workforce Center for Emerging Technologies Programming/Software Engineering skill standards recognized by the Texas Skill Standards Board.

Critical Work Function Key Activities assessed in this course:

A1 Gather data to identify customer requirements
A2 Define scope of work
A3 Define system and software requirements
A4 Identify measurable performance and reliability requirements
A5 Develop test requirements
A6 Develop high-level systems and functional specifications
A7 Identify risks and determine security requirements and risk reduction strategies
B1 Choose an architecture
B2 Identify major subsystems and interfaces
B5 Validate design scheme and models
C1 Develop design and interface specifications
C2 Identify system platform, components and dependencies
C4 Prepare and conduct design review
C5 Identify maintenance requirements
F1 Participate in development of release plan
F2 Train technical support staff
F3 Participate in development of user training plan
F4 Transition to new system
F5 Evaluate, correct and document defects
F6 Evaluate, implement and document enhancements

III. Required Text(s), Optional Text(s) and/or Materials to be Supplied by Student.


IV. Suggested Course Maximum - 20

V. List any specific spatial or physical requirements beyond a typical classroom required to teach the course.
   Computer for each student with Internet access and required development tools

VI. Course Requirements/Grading System – Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course

Projects, Exams
VII. Curriculum Checklist

☐ - Academic General Education Course (from ACGM – but not in WCJC Core)
  No additional documentation needed

☐ - Academic WCJC Core Course
  Attach the Core Curriculum Checklist, including the following:
  • Basic Intellectual Competencies
  • Perspectives
  • Exemplary Educational Objectives

☒ - WECM Courses
  • If needed, revise the Program SCANS Matrix & Competencies Checklist.