CENTRAL TEXAS COLLEGE
ITSC 1415
PROJECT MANAGEMENT SOFTWARE

Semester Hours Credit: 4

INSTRUCTOR: ________________________________

OFFICE HOURS: ______________________________

I. INTRODUCTION

A. This course is designed to provide the student of Computer Science with knowledge of using project management software for developing a project plan including timelines, milestones, scheduling, life cycle phases, management frameworks, skills, processes, and tools.

B. This course serves as a required or elective course on various degree plans. Curriculum plans for degrees and certificates are listed in the current Central Texas College catalog.

C. The delivery method of this course may be traditional lecture/lab, blended lecture/lab, or online.

D. Prerequisites: Six (6) semester hours in Computer Science courses

II. LEARNING OUTCOMES

Upon successful completion of this course, Project Management Software, the student will be able to:

A. Plan and participate as part of a project management team in the field of Information Technology. (C1, C4, C5, C9, C12, C15, F1, F9, F15)

B. Organize and evaluate project phases (C1, C4, C8, C17, C18, C19, F1, F2, F8, F10, F12)

C. Produce and analyze reports and charts (C7, C8, C18, F1, F11, F12)

D. Distinguish task relationships. (C8, C15, C18,F7, F8, F9, F12)

E. Demonstrate teamwork. (C6)

F. Use project management software to design, develop, plan, and manage a project. (C1, C4, C8, C17, C18, C19, F1, F2, F8, F10, F12)

III. INSTRUCTIONAL MATERIALS

A. The instructional materials identified for this course are viewable through www.ctcd.edu/books

June 2016
B. Lecture Classes also require at least one USB storage device. Online students may use cloud based storage.

IV. COURSE REQUIREMENTS

A. Attend both lecture and lab or in the case of online delivery, be actively engaged in Blackboard and maintain constant progress.

B. Be prepared to participate in discussion, team projects/assignments and take unannounced assessments relating to the lecture materials.

C. Complete all exams/assessments.

D. Submit all assignments on time.

V. ASSESSMENTS

A. Student content mastery will be evaluated in the following areas:
   • Assessments (midterm exam, quizzes, projects, discussion etc.)
   • Final Assessment (final exam and/or semester project, participation)

B. Scheduled and unscheduled assessments will be given at the discretion of the instructor.

C. Exams/assessments may be composed of both subjective and objective questions plus computer output.

D. A student must take all exams/assessments. No make-up exams/assessments will be given. Both online and on campus students who know in advance that they will be absent due to school sponsored trips, military duty or orders, or any other valid reason, must arrange to take an early exam/assessment. Unexpected absences due to illness or other extenuating circumstances will require the student to contact the instructor about make-up work in lieu of the missed exam/assessment.

E. Students with unexcused absences will be given a zero for each missed assignment.
VI. SEMESTER GRADE COMPUTATIONS

<table>
<thead>
<tr>
<th>Course Requirements</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>300</td>
</tr>
<tr>
<td>Assessments</td>
<td>300</td>
</tr>
<tr>
<td>Final Assessment</td>
<td>400</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Points</th>
<th>Grade</th>
<th>Quality Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>900-1000</td>
<td>A-Superior</td>
<td>4</td>
</tr>
<tr>
<td>800-899</td>
<td>B-Above Average</td>
<td>3</td>
</tr>
<tr>
<td>700-799</td>
<td>C-Average</td>
<td>2</td>
</tr>
<tr>
<td>600 - 699</td>
<td>D – Passing but Unsatisfactory</td>
<td>1</td>
</tr>
<tr>
<td>0 - 599</td>
<td>F-Failure</td>
<td>0</td>
</tr>
</tbody>
</table>

VII. NOTES AND ADDITIONAL INSTRUCTIONS FROM THE INSTRUCTOR

A. **Course Withdrawal:** It is the student’s responsibility to officially withdraw from a course if circumstances prevent attendance. Any student who desires to, or must, officially withdraw from a course after the first scheduled class meeting must file a Central Texas College Application for Withdrawal (CTC Form 59). The student must sign the withdrawal form.

CTC Form 59 will be accepted at any time prior to Friday of the 12th week of classes during the 16-week fall and spring semesters. The deadline for sessions of other lengths is:

- 10-week session: Friday of the 8th week
- 8-week session: Friday of the 6th week
- 5-week session: Friday of the 4th week

The equivalent date (75% of the semester) will be used for sessions of other lengths. The specific last day to withdraw is published each semester in the Schedule Bulletin.

For non-GoArmyEd active military students, the effective date of withdrawal is the filing date with the Education Center. For all other students, the effective date of withdrawal is the date that the withdrawal application is received by the Central Texas College representative.

Students who used financial aid, military tuition assistance, VA benefits, or other non-personal funds may be required to repay tuition and fees to the funding agency. For specific repayment requirements, contact the Office of Student Financial Aid or Veterans Services Office before withdrawing. Military tuition assistance students should visit their military Education Center or Navy College Office.

A student who officially withdraws will be awarded the grade of “W” provided the student’s attendance and academic performance are satisfactory at the time of official withdrawal. Students must file a withdrawal application with the College before they may be considered for withdrawal.
A student may not withdraw from a class for which the instructor has previously issued a grade of “F,” “FI,” “FN,” “IP,” or “XN.”

B. Instructor Initiated Withdrawals: Faculty are authorized to withdraw students who are not making satisfactory course progress to include failure to meet College attendance requirements as outlined in the section of the Catalog entitled “Satisfactory Progress Standards.” The instructor will assign the appropriate grade on CTC Form 59 for submission to the registrar.

Students enrolled in distance learning courses are expected to maintain constant progress throughout the course. Failure to do so may result in the student being administratively withdrawn by the instructor.

Students who have not attended class by the 12th class day of a 16-week course or the 6th class day of an 8-week term may be administratively withdrawn by the instructor with a grade of "W." Students may be administratively withdrawn from any class when their absences reach a total equal to 12.5% of the class hours for the course; and in the opinion of the instructor, the student cannot satisfactorily complete the course. An example: Students attending a 48-hour class during an 8-week period normally meet 180 minutes each session for 16 sessions. Those students accumulating two (2) unexcused absences are subject to Administrative Withdrawal since the total unexcused absences equal 12.5% of class hours for the course. Those students attending a 48 hour class during a 16-week period normally meet 90 minutes each session for 32 sessions. Those students accumulating four (4) unexcused absences are subject to Administrative Withdrawal since the total unexcused absences equals 12.5% of class hours for the course. In a distance learning course the last date of attendance is the last activity by the student in the course.

C. Administrative Withdrawal: A student may be administratively withdrawn by a designated member of the administrative staff of the College when the student has been placed on Academic Suspension or Disciplinary Suspension; the student has an outstanding financial obligation owed to the college; or the student registered for a course without the required prerequisite or departmental permission.

The College is under no obligation to refund tuition and fees, or other costs associated with an administrative or instructor initiated withdrawal.

D. Incomplete Grade: The College catalog states, “An incomplete grade may be given in those cases where the student has completed the majority of the coursework but, because of personal illness, death in the immediate family, or military orders, the student is unable to complete the requirements for a course...” Prior approval from the instructor is required before the grade of “IP” for Incomplete is recorded.
E. Cell Phones and Pagers: Students will silence cell phones and mobile devices while in the classroom or lab.

F. Americans with Disabilities Act (ADA): Disability Support Services provide services to students who have appropriate documentation of a disability. Students requiring accommodations for class are responsible for contacting the Office of Disability Support Services (DSS) located on the central campus. This service is available to all students, regardless of location. Review the website at www.ctcd.edu/disability-support for further information. Reasonable accommodations will be given in accordance with the federal and state laws through the DSS office.

G. Instructor Discretion: The instructor reserves the right of final decision in course requirements and may make changes to the course outline and/or assignments as needed.

H. Civility: Individuals are expected to be aware of what a constructive educational experience is and be respectful of those participating in a learning environment. Failure to do so can result in disciplinary action up to and including expulsion.

I. Degree Progression: Students who receive a grade of “D” are advised not to enroll in the next course for which this course was a prerequisite.

J. Failing Grade: The grade of “F” or “FN” will be given for academic failure, non-attendance or scholastic dishonesty.

K. Scholastic Honesty: All students are expected to maintain the highest standards of scholastic honesty in the preparation of all course work and during examinations. The college policy on scholastic honesty, including definitions on plagiarism, collusion, and cheating can be found at the following URL: http://online.ctcd.edu/plagiarism.cfm
VIII. COURSE OUTLINE

A. Lesson One: Introduce course requirements and objectives. Introduce the student to lab and use of equipment.

1. Learning Outcomes: Upon successful completion of this lesson the student will be able to:
   a. Apply course requirements as defined in the syllabus and reviewed by the instructor.
   b. Employ hardware and software used in project management.
   c. Distinguish project, program, and portfolio management.
   d. Describe the elements of a project, including the triple constraints of project management.
   e. Analyze the concepts of project management framework including stakeholders, knowledge areas, software tools and techniques.
   f. Analyze the relationship between project, program, and portfolio management.
   g. Describe the functions of a project manager, including professional certifications and organizations

2. Learning Activities:
   a. Read syllabus. (C5, F1)
   b. Read and analyze assignments. (C5, C6, F1, F9, F11, F12)
   c. Use laboratory equipment. (C5, C6, C8, C9, C19, F1, F5, F11)

3. Lesson Outline:
   a. Discuss syllabus
   b. Present project management concepts
   c. Cover hardware and software fundamentals used in project management
   d. Conduct laboratory demonstration of applied software

B. Lesson Two: Project Management in Information Technology

1. Learning Outcomes: Upon successful completion of this lesson the student will be able to:
   a. Describe the systems view of IT project management
   b. Analyze the use of stakeholder analysis in a project’s success
   c. Research recent trends in IT Project Management including globalization, outsourcing, and virtual teams
   d. Use a case study to demonstrate the five project management process groups including the typical level of activities for each and the interactions among them
   e. Analyze how process groups relate to knowledge areas
   f. Apply process group theory to manage the initiating, planning, executing, monitoring and controlling, and closing phases of a project.
2. **Learning Activities:**
   a. Research the field of project management and differentiate it from program and portfolio management. (C5, C6, C18, C19, F1, F11)
   b. Identify the software tools used in project management. (C9, C18, F1, F2, F12)
   c. Create and join a class project management team. (C18, F1, F11)

3. **Lesson Outline:**
   a. Systems view of IT Project Management
   b. Project management analyses including stakeholder analysis
   c. Online research into project management trends

C. **Lesson Three: Project Integration and Scope Management**

1. **Learning Outcomes:** Upon successful completion of this lesson the student will be able to:
   a. Design an overall framework for a project using project management integration techniques
   b. Create a strategic project management plan
   c. Develop a project charter to initiate a project
   d. Explain the processes necessary for project management plan development
   e. List and employ the steps necessary to control and monitor an ongoing project
   f. Devise a change control process including the development of a change control system
   g. Develop scope management techniques, including collection and documentation of needs and expectations
   h. Create a scope statement for the project
   i. Design a Work Breakdown Structure (WBS) for the project
   j. Use appropriate software to manage project scope

2. **Learning Activities:**
   a. Online research and analysis concerning IT project management
   b. Online collaborative discussion
   c. Use of multiple software applications to design and control scope

3. **Lesson Outline:**
   a. Importance of IT project management in industry. (C5, C6, C7, F1, F11)
   b. Analysis of four-stage planning process for project scope. (C5, C7, F1, F11)
   c. Application of appropriate software for project management statistics. (C19, C20, F1, F11)
D. **Lesson Four: Project Time Management**

1. **Learning Outcomes:** Upon successful completion of this lesson the student will be able to:
   a. Create a project schedule
   b. Use software to estimate resource usage
   c. Perform activity duration estimates
   d. Create a Gantt chart for planning and tracking schedules
   e. Use a Program Evaluation and Review Technique (PERT) chart to affect schedule development

2. **Learning Activities:**
   a. Online research and analysis concerning IT project management (C5, C19, C20, F1, F11)
   b. Online collaborative discussion (C5, C19, C20, F1, F11)
   c. Complete the PC Lab exercises (C5, C6, C7, C8, F1, F2, F10)

3. **Lesson Outline:**
   a. Project scheduling- importance, activities, and sequencing
   b. Estimating activity resources and duration
   c. Developing a project schedule
   d. Creating Gantt and PERT diagrams
   e. Controlling the project schedule

E. **Lesson Five: Project Cost and Quality Management**

1. **Learning Outcomes:** Upon successful completion of this lesson the student will be able to:
   a. Devise a project cost management plan using cost management principles, concepts, and terms.
   b. Compare and contrast types of cost management methods
   c. Use appropriate software to create cost and quality management documents.
   d. Create a cost estimate and cost baseline.
   e. Create a quality control process including quality assurance features
   f. Distinguish among current tools and techniques for quality control including the Seven Basic Tools of Quality, statistical sampling, Six Sigma, Agile, and others.
2. **Learning Activities:**
   a. Online research and analysis concerning IT project management (C5, C19, C20, F1, F11)
   b. Online collaborative discussion (C5, C19, C20, F1, F11)
   c. Use appropriate software to create Gantt charts showing critical paths, resources, dependencies, and timelines (C1, C5, C7, C9, C17, C19, C20, F1, F8, F9)
   d. Use appropriate software to develop cost estimates and baselines (C5, C6, C7, C8, F1, F2, F10)

3. **Lesson Outline:**
   a. Create project plans, including team contract, budgets, and critical paths
   b. Discuss planning tasks, including the elements of a team contract
   c. Use MS Project for creating project timeline, dependencies, resources, milestones, and critical path analysis

---

F. **Lesson Six: Human Resource and Project Communication Management**

1. **Learning Outcomes:** Upon successful completion of this lesson the student will be able to:
   a. Use appropriate software for tasks and outputs in project human resource and communication management.
   b. Describe and distinguish seminal theories in human resource management including those of Maslow, Herzberg, et al.
   c. Use appropriate software to create contract statements of work, and supplier evaluation matrices
   d. Employ various methods for project communication and collaboration such as Internet cloud applications, websites, blogs, email, schedulers, SharePoint, and other networked technologies.
   e. Interview a practicing project manager

2. **Learning Activities:**
   a. Online research and analysis concerning IT project management (C5, C19, C20, F1, F11)
   b. Online collaborative discussion (C5, C19, C20, F1, F11)
   c. Complete the PC Lab exercises (C5, C6, C7, C8, F1, F2, F10)

3. **Lesson Outline:**
   a. Keys to managing people
   b. Developing a Human Resource Management Plan
   c. Creating the project team including resource assignment, loading, and leveling
   d. Using technology for project information distribution
   e. Creating project performance reports
f. Developing communication skills

G. Lesson Seven: Project Risk Management

1. **Learning Outcomes:** Upon successful completion of this lesson the student will be able to:
   a. Identify and prioritize potential project risks
   b. Discuss elements of risk management planning
   c. Create a risk register
   d. Use appropriate software to calculate risk factors, apply decision trees, and track risks
   e. Create risk response strategies
   f. Use appropriate software to monitor and control risk

2. **Learning Activities:**
   a. Online research and analysis concerning IT project management (C5, C19, C20, F1, F11)
   b. Online collaborative discussion (C5, C19, C20, F1, F11)
   c. Complete the PC Lab exercises (C5, C6, C7, C8, F1, F2, F10)

3. **Lesson Outline:**
   a. Discuss concepts in project management risk analysis
   b. Explain tasks performed in procurement management
   c. Use appropriate software applications to create project management documents in risk management.
   d. Perform qualitative and quantitative risk analysis
   e. Create a risk register

H. Lesson Eight: Project Procurement and Project Stakeholder Management

1. **Learning Outcomes:** Upon successful completion of this lesson the student will be able to:
   a. Use appropriate software applications in creating contract administration documents
   b. Create a Statement of Work (SOW)
   c. Administer project procurement activities
   d. Use a reflective “Lessons Learned” format for project evaluation
   e. Create a project “Kick-off” presentation
   f. Create computerized products such as customer acceptance/project completion forms, final project reports, and lessons-learned reports for use in the evaluation of projects and for future project selection
2. **Learning Activities:**
   a. Online research and analysis concerning IT project management (C5, C19, C20, F1, F11)
   b. Online collaborative discussion (C5, C19, C20, F1, F11)
   c. Complete the PC Lab exercises (C5, C6, C7, C8, F1, F2, F10)

3. **Lesson Outline:**
   a. Discuss tasks and outputs of project procurement
   b. Discuss scope verification, scope control, and determination of deliverables.
   c. Distinguish the seven basic tools of quality and discuss how they assist in quality control.
   d. Discuss monitoring and control in risk, communication, human resource, and procurement.
   e. Use appropriate software to create monitoring and control matrices and calculation
   f. Analyze, synthesize, and evaluate a project
   g. List the tasks and outputs of a project closing
   h. Discuss best practices in project management