CENTRAL TEXAS COLLEGE
ITSC 2439
PERSONAL COMPUTER HELP DESK SUPPORT

Semester Hours Credit: 4

INSTRUCTOR: ______________________
OFFICE HOURS: __________________

I. INTRODUCTION

A. This course covers the procurement, use and evaluation of computer resources including hardware, software, and people as well as the diagnosis and solution of user hardware and software related problems with on-the-job and/or simulated projects. Topics include capacity planning, upgrades, downsizing, choosing the correct hardware and software, compatibility, connectivity, diagnosis and solution of software and hardware related problems, and vendor versus in-house support.

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. This course in conjunction with other courses listed on the degree plan serves as preparation for careers in computer network administration and information management.

D. Prerequisites: Twelve (12) Hours of Computer Science Courses.

II. LEARNING OUTCOMES

Upon successful completion of this course, Personal Computer Help Desk Support, the student will be able to:

A. Demonstrate rapport with users in problem-solving situations. (C3, C4, C5, C7, C11)
B. Analyze user problems and lead them through solutions. (C7, C8, C9, F2, F8, F9, F16)
C. Maintain problem logs. (C1, C4, C5, C6, C7, C8, C11, C12, C13, C14, F5, F6, F8, F9, F16)
D. Formulate problem-solving methodologies. (C1, C4, C5, C6, C7, C8, C11, C12, C13, C14, F5, F6, F8, F9, F16)

February 2015
E. Evaluate end user documentation and problem logs (C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C17, C18, C19, F1, F2, F4, F5, F6, F8, F9, F16)
F. Describe the major types of computer facilities and management (C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C17, C18, C19, F1, F2, F4, F5, F6, F8, F9, F16)

III. INSTRUCTIONAL MATERIALS

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

B. Lecture Classes also require at least one USB storage device (4 GB preferred). 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:
   - Assignments (homework, in class assignments, etc.)
   - Assessments (midterm exam, quizzes, projects, etc.)
   - Final Assessment (final exam and/or semester project, participation)

B. Scheduled and unscheduled quizzes will be given at the discretion of the instructor. There is no make-up for these (see IV.C. above).

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 see the instructor about make-up work in lieu of the missed exam/assessment.

E. Students with unexcused absences will be given a zero for the missed work.

VI. SEMESTER GRADE COMPUTATION

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<th>Course Requirements</th>
<th>Points</th>
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<tr>
<td>Assignments/Quizzes</td>
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<tr>
<td>Midterm Assessment</td>
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<td>Final Assessment</td>
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<td><strong>TOTAL</strong></td>
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<th>Points</th>
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<td>900-1000</td>
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<tr>
<td>800-899</td>
<td>B-Above Average</td>
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<td>600-699</td>
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<tr>
<td>0-599</td>
<td>F-Failure</td>
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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 the student a grade of an “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 also be administratively withdrawn from any class when their absences exceed a total of four class meetings for a 16-week course or three class meetings for less than 16-week courses and, in the opinion of the instructor, the student cannot satisfactorily complete 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 a student who is administratively withdrawn.

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 course work 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](http://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 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 a “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](http://online.ctcd.edu/plagiarism.cfm)
VIII. COURSE OUTLINE

A. **Unit Zero**: Introduction of course requirements and objectives. Describe conduct of course.

1. **Learning Outcomes**: Upon completion of this unit, the student will be able to locate information required by the course and present it in an appropriate manner.

2. **Learning Activities**:
   a. Read syllabus. (C5, C6, F1, F5)
   b. Read and analyze assignment requirements. (C5, C6, F1, F5)
   c. Organize teams. (C5, C6, F1, F5, F6, F15)

3. **Unit Outline**:
   a. Discuss Course objectives and requirements
   b. Discuss Course activities and grading
   c. Describe assignment and presentation requirements
   d. Describe sources of other information, particularly the college library and Internet

B. **Unit One**: Overview of Computer User Support

1. **Learning Outcomes**: Describe the knowledge, skills, and abilities needed to qualify for an entry-level user support position.

2. **Learning Activities**:
   a. Lecture and discussion. (C5, C6, F1, F5)
   b. Role-playing and team competition. (C5, C6, F1, F5, F6, F15)
   c. Quizzes, present Case Study. (F17, F1, F2, C7, C4)

3. **Unit Outline**:
   a. How historical changes in computer technology have affected computer use(C5, C6, F1, F5)
   b. Ways to classify end users(C5, C6, F1, F5)
   c. Resources computer users need and major categories of end-user software(C5, C6, F1, F5)
   d. Common problems users encounter(C5, C6, F1, F5)
   e. The job market demand for user support employees(C5, C6, F1, F5)
   f. Common ways to organize and provide support services (C5, C6, F1, F5)
   g. Typical position descriptions for user support staff (C5, C6, F1, F5)
   h. The knowledge, skills, and abilities for an entry-level support position (C5, C6, F1, F5)
   i. Career paths for user support workers (C5, C6, F1, F5).
C. **Unit Two: Customer Service Skills for User Support Agents**

1. **Learning Outcomes:** students will learn about communication skills, including how to be an effective listener, how to overcome the challenges of telephone communication, and how to develop an effective personal communication style. Students will learn strategies for dealing with difficult situations and users. An overview of personality types is provided, and students learn how these personality types may cause communications issues. The student will be introduced to Web 2.0-based user support.

2. **Learning Activities:**
   a. Participate in Lecture and discussion. (C5, C6, F1, F5)
   b. Participate in Role-playing and team discussion. (C5, C6, F1, F5, F6, F15)
   c. Quizzes. (F17, F1, F2, C7, C4)

3. **Unit Outline:**
   a. The importance of strong relationships and good communication and interpersonal skills (C5, C6, F1, F5)
   b. Reasons support agents must listen and read carefully, build and communicate understanding, and use verbal and nonverbal communication effectively (C5, C6, F1, F5)
   c. How to develop a personal communication style (C5, C6, F1, F5)
   d. How support agents develop an incident management strategy (C5, C6, F1, F5)
   e. Strategies support agents use for voice and web-based communications (C5, C6, F1, F5)
   f. Strategies support agents use for working with difficult clients and incidents and for resolving conflicts (C5, C6, F1, F5)
   g. How developing an understanding of different personality types and work styles can help an agent (C5, C6, F1, F5)
   h. How to build excellent customer service (C5, C6, F1, F5)

D. **Unit Three: Writing for End Users**

1. **Learning Outcomes:** Upon completion of this unit, the student will be able to organize and write technical documents.

2. **Learning Activities:**
   a. Lecture and discussion. (C5, C6, F1, F5)
   b. Role playing and team discussion. (C5, C6, F1, F5, F6, F15)
   c. Present Case study. (C5, C6, F1, F5, F6, F15)
   d. Quizzes. (F17, F1,F2, C7, C4)
3. Unit Outline:
   a. Types of end-user documentation (F1, F2, F9, F10)
   b. How technical writing differs from other writing (F1, F2)
   c. How technical documents are organized (F1, F2, F8)
   d. How to plan effective user documents (C1, C5, C7, F1, F2, F8)
   e. Effective use of formats (C1, C5, C7, F1, F2, F8, F9)
   f. Strategies for technical writing (C1, C5, C7, F1, F2, F8, F9)
   g. Common problems in technical writing (C1, C5, C7, F1, F2, F8, F9)
   h. Tools used for technical writing (C1, C3, C5, C7, F1, F2, F8, F9)

E. Unit Four: Skills for Troubleshooting Technology Problems

1. Learning Outcomes: Upon completion of this unit, the student will be able to describe the type of communication skills required for effective troubleshooting. The chapter provides a listing of various resources and tools that aid troubleshooters as well as strategies for troubleshooting. The conclusion of the chapter discusses personality traits for effective troubleshooters and how to create a personal approach to this skill.

2. Learning Activities:
   a. Lecture and discussion. (C5, C6, F1, F5)
   b. Role playing and team discussion. (C5, C6, F1, F5, F6, F15)
   c. Present Case study. (C5, C6, F1, F5, F6, F15)
   d. Quizzes. (F17, F1, F2, C7, C4)

3. Unit Outline:
   i. The troubleshooting process and the thinking skills required for successful troubleshooting (C1, C3, C5, C6, C13, F2, F5)
   j. Communication skills for troubleshooting (C1, C3, C5, C6, C13, C20, F2, F5)
   k. Information resources to help solve computer problems (C1, C3, C5, C6, C13, C20, F2, F5)
   l. Diagnostic and repair tools used to troubleshoot computer problems (C1, C3, C5, C6, C13, C20, F2, F5)
   m. Strategies for troubleshooting (C1, C3, C5, C6, C13, C20, F2, F5)
   n. How to develop an individual approach to problem solving (C1, C3, C5, C6, C13, C20, F2, F5)

F. Unit Five: Common Support Problems

1. Learning Outcomes: Upon completion of this unit, the student will be able to describe user support issues that are likely to be encountered by support agents. A range of topics from hardware, to vendor issues, to operating environment issues is covered, with problem-solving strategies for each issue suggested. The final section of the chapter provides seven scenarios where
support agents solve support problems..

2. **Learning Activities:**
   
e. Lecture and discussion. (C5, C6, F1, F5)
   
f. Role playing and team discussion. (C5, C6, F1, F5, F6, F15)
   
g. Present Case study. (C5, C6, F1, F5, F6, F15)
   
h. Quizzes. (F17, F1,F2, C7, C4)

3. **Unit Outline:**
   
a. Several categories of common end-user computer problems (C5, C6, F1, F5)
   
b. Problem-solving processes applied to several typical support problems(C5, C6, F1, F5)

G. **Unit Six: Help Desk Operation**

   1. **Learning Outcomes:** Upon completion of this unit, the student will be able to describe the most commonly used workflows for handling help desk support requests. The best practices for help desk services, information on the physical layout of help desk workspaces, and job stress in the help desk profession are discussed. The chapter concludes with an overview of help desk hardware and software, and an examination of trends in help desk technology and the workplace..

   2. **Learning Activities:**
      
a. Lecture and discussion. (C5, C6, F1, F5)
      
b. Role playing and team discussion. (C5, C6, F1, F5, F6, F15)
      
c. Present Case study. (C5, C6, F1, F5, F6, F15)
      
d. Quizzes. (F17, F1,F2, C7, C4)

   3. **Unit Outline:**
      
a. Help desk operation procedures(C5, C6, F1, F5)
      
b. The multilevel support model(C5, C6, F1, F5)
      
c. The incident management process(C5, C6, F1, F5)
      
d. Best practices in help desk operations (C5, C6, F1, F5)
      
e. The physical layout of help desk work areas (C5, C6, F1, F5)
      
f. Job stress in help desk work (C5, C6, F1, F5)
      
g. Hardware and software tools used by support agents, managers, and end users (C5, C6, F1, F5)
      
h. Help desk trends (C5, C6, F1, F5)

H. **Unit Seven: User Support Management**

   1. **Learning Outcomes:** Upon completion of this unit, the student will be able to
analyze the perspective of the manager of a help desk support group. The first half of the unit covers the ways that managers evaluate staff performance, justify costs, and hire new staff. The second half of the unit focuses on training and certification for support staff.

2. Learning Activities:
   a. Lecture and discussion. (C5, C6, F1, F5)
   b. Role playing and team discussion. (C5, C6, F1, F5, F6, F15)
   c. Present Case study. (C5, C6, F1, F5, F6, F15)
   d. Quizzes. (F17, F1,F2, C7, C4)

3. Unit Outline:
   a. The mission of a support group and the parts of a mission statement (C5, C6, F1, F5)
   b. Items in a type user support budget. (C1, C2)
   c. The steps in staffing a support help desk position (C5, C6, F1, F5)
   d. The contents of a training program for support staff (C5, C6, F1, F5)
   e. Evaluations of support staff performance (C1, C4)
   f. Industry certifications that are available to support professionals (C5, C6, F1, F5)
   g. Professional help desk and user support associations (C5, C6, F1, F5)
   h. Ethical principles that guide the professional behavior of support workers (C5, C6, F1, F5)

I. Unit Eight: Product Evaluation Strategies and Support Standards

   1. Learning Outcomes: Upon completion of this unit, the student will be able to describe in detail the idea of product standards, including the case for standards, how to develop and implement standards, and typical product support standards. The unit also contains a section dealing with product selection and evaluation by various objective and subjective methods.

   2. Learning Activities:
      a. Lecture and discussion. (C5, C6, F1, F5)
      b. Role playing and team discussion. (C5, C6, F1, F5, F6, F15)
      c. Present Case study. (C5, C6, F1, F5, F6, F15)
      d. Quizzes. (F17, F1,F2, C7, C4)

   3. Unit Outline:
      a. How product and support standards emerged(C5, C6, F1, F5, F6, F15)
      b. Common tools and methods support specialists use to evaluate and select computer products (C5, C6, F1, F5, F6, F15)
      c. Information resources and decision-making tools for evaluating and selecting technology products (C5, C6, F1, F5, F6, F15)
      d. Typical product support standards (C5, C6, F1, F5, F6, F15)
      e. How organizations develop and implement product standards(C5, C6, F1, F5, F6, F15)
J. **Unit Nine: End User Needs Assessment Projects**

1. **Learning Outcomes:** Upon completion of this unit, the student will be able to create a project to analyze end-user technology needs. The first part of the unit breaks this type of project into nine steps, providing a general overview of each step and then relating it to a case study. Students will then learn about common tools used in this type of project, and the project management methods and tools used to manage this type of project.

2. **Learning Activities:**
   a. Lecture and discussion. (C5, C6, F1, F5)
   b. Role playing and team discussion. (C5, C6, F1, F5, F6, F15)
   c. Present Case study. (C5, C6, F1, F5, F6, F15)
   d. Quizzes. (F17, F1, F2, C7, C4)

3. **Unit Outline:**
   a. Basic strategies to perform user needs analysis and assessment(C5, C6, F1, F5, F6, F15)
   b. Steps analysts undertake to analyze and assess a user’s needs(C5, C6, F1, F5, F6, F15)
   c. Common tools that aid support specialists in a user needs analysis project(C5, C6, F1, F5, F6, F15)
   d. Tasks in managing a user needs assessment project(C5, C6, F1, F5, F6, F15)
   e. Project management software tools(C5, C6, F1, F5, F6, F15)

K. **Unit Ten: Installing and Managing End-User Computer Technology**

1. **Learning Outcomes:** Upon completion of this unit, the student will be able to describe the types of information that should be gathered before installing a computer system. Students will learn about putting together a site management notebook and the tools for hardware installations. Hardware, operating systems, networks, and application software installations are also covered. The unit concludes with a section on ongoing site maintenance.

2. **Learning Activities:**
   a. Lecture and discussion. (C5, C6, F1, F5)
   b. Role playing and team discussion. (C5, C6, F1, F5, F6, F15)
   c. Present Case study. (C5, C6, F1, F5, F6, F15)
   d. Quizzes. (F17, F1, F2, C7, C4)

3. **Unit Outline:**
a. Major site preparation steps for computer installations(C5, C6, F1, F5, F6, F15)
b. Pre-installation site preparation tasks (C5, C6, F1, F5, F6, F15)
c. The purpose and contents of a site management notebook(C5, C6, F1, F5, F6, F15)
d. Tools needed to install hardware(C5, C6, F1, F5, F6, F15)
e. Steps to install and configure hardware, operating systems, networks, and application software
f. Common installation wrap-up tasks (C5, C6, F1, F5, F6, F15)
g. Ongoing site management tasks(C5, C6, F1, F5, F6, F15)

L. **Unit Eleven: Technology Training for Users**

1. **Learning Outcomes:** Upon completion of this unit, the student will become familiar with the four steps in the training process: planning, preparation, presentation, and progression toward higher-quality user training. The unit provides an introduction to different learning styles and delivery methods.

2. **Learning Activities:**
   a. Lecture and discussion. (C5, C6, F1, F5)
   b. Role playing and team discussion. (C5, C6, F1, F5, F6, F15)
   c. Present Case study. (C5, C6, F1, F5, F6, F15)
   d. Quizzes. (F17, F1,F2, C7, C4)

3. **Unit Outline:**
   a. Goals of training activities(C5, C6, F1, F5, F6, F15)
   b. Steps in the training process(C5, C6, F1, F5, F6, F15)
   c. How to plan a training session(C5, C6, F1, F5, F6, F15)
   d. How to prepare a training session(C5, C6, F1, F5, F6, F15)
   e. How to present a training module(C5, C6, F1, F5, F6, F15)
   f. How to progress toward quality training(C5, C6, F1, F5, F6, F15)

M. **Unit Twelve: A User Support Utility Tool Kit**

1. **Learning Outcomes:** Upon completion of this unit, the student will be able to categorize and distinguish among a large number of tools that support agents find useful.

2. **Learning Activities:**
   a. Lecture and discussion. (C5, C6, F1, F5)
   b. Role playing and team discussion. (C5, C6, F1, F5, F6, F15)
   c. Present Case study. (C5, C6, F1, F5, F6, F15)
   d. Quizzes. (F17, F1,F2, C7, C4)
3. **Unit Outline:**
   a. Software utilities and information resources used by support specialists (C5, C6, F1, F5, F6, F15)
   b. Categories of common user support utilities (C5, C6, F1, F5, F6, F15)
   c. Examples of useful support utilities (C5, C6, F1, F5, F6, F15)

   NOTE: Dependent on the length of the course, each Lesson may be composed of one, two or three Units.