Course Syllabus

ITSC 2435 – Application Problem Solving

Catalog Description: Utilization of appropriate application software to solve advanced problems and generate customized solutions.

Prerequisites: ITSW 1401, ITSW 1404, ITSW 1407, ITSW 1410, IMED 1401, IMED 1416, POFI 2431, and instructor approval. This course is a CAPSTONE course and is designed to be completed the LAST semester when completing the AAS degree in Computer Information Technology. For the greatest probability of success, all courses listed for semesters 1, 2, and 3 should be completed prior to enrolling in this course.

Semester Credit Hours: 4
Lecture Hours per Week: 3
Lab Hours per Week: 3
Extended hours: 0.
Contact Hours per Semester: 96

State Approval Code: 11.0101

Class section meeting time:

Instructional Goals and Purposes: The purpose of this course is to serve as a capstone class to allow the students an opportunity to demonstrate their mastery of Office Productivity Software. The students will also prove their ability to make wise business decisions and excellent use of computer skills in carrying out the solution to business problems.

Learning Outcomes:
1. Evaluate project parameters.
2. Design and document a solution based on the project parameters.
3. Implement the solution.
4. Present the project.

Specific Course Objectives (includes SCANS):
After studying all materials and resources presented in the course, the student will be able to:

1. Given a complex business application, the learner will evaluate the specified parameters. (1a-i, 1a-iv, 1c-i, 1c-iv, 1c-v, 2a-i, 2c-i)
2. Based on the evaluation of the specified parameters of the complex business application, the learner will design and document a solution. (1a-ii, 1b-ii, 1b-v, 1b-vi, 1c-i, 1c-iv, 1c-v, 2a-i, 2c-iii, 2d-i, 2e-i)
3. Integrating a variety of application software, the learner will implement the solution for the complex business application. (1c-i, 1c-iv, 2a-i, 2b-ii, 2c-iv, 2e-i)
4. The learner will present his or her solution to the complex business application. (1c-i, 1c-iii, 1c-v, 2a-i, 2c-iv, 2e-I, 2e-ii)

Course Content:
A general description of lecture/discussion topics included in this course are listed in the Learning Outcomes / Specific Course Objectives sections of this syllabus.

Students in all sections of this course will be required to do the following:

1. Complete reading activities.
2. Complete software review activities.
3. After evaluating parameters of a complex business application (MAJOR PROJECT), submit a proposal for a design solution.
4. Based on the submitted proposal, implement the design solution.
5. Present the completed project solution.

Methods of Instruction/Course Format/Delivery:

This course is offered in an online environment using the Canvas Learning Management System. The distance learners will be required to come to campus a minimum of two times during the semester. One of those times will be to present their Major Project at the end of the semester.

Major Assignments / Assessments:
The following items will be assigned and assessed during the semester and used to calculate the student's final grade.

Assignments

1. Review Activities – Business problems to be solved using Microsoft Office application software.

Assessment(s):

1. Major Project – Business portfolio designed and presented by the student to demonstrate mastery of Office Productivity software applications.

Course Grade:
The grading scale for this course is as follows:

- Major Project – 40%
- Review Activities – 60%

Texts, Materials, and Supplies: None

Required Readings:

- Assignments listed inside Canvas Course

Recommended Readings: None

Other:

- For current texts and materials, use the following link to access bookstore listings: https://www.panolacollegestore.com
- For testing services, use the following link: https://www.panola.edu/elearning/testing.html
- If any student in this class has special classroom or testing needs because of a physical learning or emotional condition, please contact the ADA Student Coordinator in Support Services located in the Charles C. Matthews Student Center or go to https://www.panola.edu/student-success/disability-support-services/ for more information.
- Withdrawing from a course is the student's responsibility. Students who do not attend class and who do not withdraw will receive the grade earned for the course.
- Student Handbook, *The Pathfinder:* https://www.panola.edu/student-success/documents/pathfinder.pdf

SCANS CRITERIA

1) **Foundation skills are defined in three areas: basic skills, thinking skills, and personal qualities.**

   a) **Basic Skills**: A worker must read, write, perform arithmetic and mathematical operations, listen, and speak effectively. These skills include:
      i) Reading: locate, understand, and interpret written information in prose and in documents such as manuals, graphs, and schedules.
      ii) Writing: communicate thoughts, ideas, information, and messages in writing, and create documents such as letters, directions, manuals, reports, graphs, and flow charts.
      iii) Arithmetic and Mathematical Operations: perform basic computations and approach practical problems by choosing appropriately from a variety of mathematical techniques.
      iv) Listening: receive, attend to, interpret, and respond to verbal messages and other cues.
      v) Speaking: Organize ideas and communicate orally.

   b) **Thinking Skills**: A worker must think creatively, make decisions, solve problems, visualize, know how to learn, and reason effectively. These skills include:
      i) Creative Thinking: generate new ideas.
      ii) Decision Making: specify goals and constraints, generate alternatives, consider risks, and evaluate and choose the best alternative.
      iii) Problem Solving: recognize problems and devise and implement plan of action.
      iv) Visualize ("Seeing Things in the Mind's Eye"): organize and process symbols, pictures, graphs, objects, and other information.
      v) Knowing How to Learn: use efficient learning techniques to acquire and apply new knowledge and skills.
      vi) Reasoning: discover a rule or principle underlying the relationship between two or more objects and apply it when solving a problem.

   c) **Personal Qualities**: A worker must display responsibility, self-esteem, sociability, self-management, integrity, and honesty.
      i) Responsibility: exert a high level of effort and persevere toward goal attainment.
      ii) Self-Esteem: believe in one's own self-worth and maintain a positive view of oneself.
      iii) Sociability: demonstrate understanding, friendliness, adaptability, empathy, and politeness in group settings.
      iv) Self-Management: assess oneself accurately, set personal goals, monitor progress, and exhibit self-control.
      v) Integrity and Honesty: choose ethical courses of action.

2) **Workplace competencies are defined in five areas: resources, interpersonal skills, information, systems, and technology.**

   a) **Resources**: A worker must identify, organize, plan, and allocate resources effectively.
      i) Time: select goal-relevant activities, rank them, allocate time, and prepare and follow schedules.
      ii) Money: Use or prepare budgets, make forecasts, keep records, and make adjustments to meet objectives.
      iii) Material and Facilities: Acquire, store, allocate, and use materials or space efficiently.
      Examples: construct a decision time line chart; use computer software to plan a project; prepare a budget; conduct a cost/benefits analysis; design an RFP process; write a job description; develop a staffing plan.

   b) **Interpersonal Skills**: A worker must work with others effectively.
      i) Participate as a Member of a Team: contribute to group effort.
      ii) Teach Others New Skills.
      iii) Serve Clients/Customers: work to satisfy customer's expectations.

iv) Exercise Leadership: communicate ideas to justify position, persuade and convince others, responsibly challenge existing procedures and policies.
v) Negotiate: work toward agreements involving exchange of resources, resolve divergent interests.
vi) Work with Diversity: work well with men and women from diverse backgrounds.

Examples: collaborate with a group member to solve a problem; work through a group conflict situation, train a colleague; deal with a dissatisfied customer in person; select and use appropriate leadership styles; use effective delegation techniques; conduct an individual or team negotiation; demonstrate an understanding of how people from different cultural backgrounds might behave in various situations.

c) **Information**: A worker must be able to acquire and use information.
   i) Acquire and Evaluate Information.
   ii) Organize and Maintain Information.
   iii) Interpret and Communicate Information.
   iv) Use Computers to Process Information.

   Examples: research and collect data from various sources; develop a form to collect data; develop an inventory record-keeping system; produce a report using graphics; make an oral presentation using various media; use on-line computer data bases to research a report; use a computer spreadsheet to develop a budget.

d) **Systems**: A worker must understand complex interrelationships.
   i) Understand Systems: know how social, organizational, and technological systems work and operate effectively with them.
   ii) Monitor and Correct Performance: distinguish trends, predict impacts on system operations, diagnose deviations in systems' performance and correct malfunctions.
   iii) Improve or Design Systems: suggest modifications to existing systems and develop new or alternative systems to improve performance.

   Examples: draw and interpret an organizational chart; develop a monitoring process; choose a situation needing improvement, break it down, examine it, propose an improvement, and implement it.

e) **Technology**: A worker must be able to work with a variety of technologies.
   i) Select Technology: choose procedures, tools or equipment including computers and related technologies.
   ii) Apply Technologies to Task: understand overall intent and proper procedures for setup and operation of equipment.
   iii) Maintain and Troubleshoot Equipment: Prevent, identify, or solve problems with equipment, including computers and other technologies.

   Examples: read equipment descriptions and technical specifications to select equipment to meet needs; set up and assemble appropriate equipment from instructions; read and follow directions for troubleshooting and repairing equipment.