CPSC6105 COURSE SYLLABUS

INSTRUCTOR INFORMATION

INSTRUCTOR NAME: Jianhua YANG
EMAIL: yang_jianhua@ColumbusState.edu
PHONE: 706-507-8180
OFFICE HOURS AND LOCATION: TBA, CCT440
MEETING TIME AND PLACE: N/A for Online Offer. Meet through D2L. For Onsite students, meet at CCT440 once a week.

COURSE INFORMATION

COURSE CRN NUMBER/TITLE : 80962, 80491/Fundamental Principles of Computer Science
CREDIT HOURS/PREREQUISITES: 3/NA

COURSE DESCRIPTION

Overview of basic concepts in computer science ranging from computer hardware components, interconnection network structures and communication protocols, analysis of computer algorithms to software systems and applications. May not be applied to a degree program. Need a "B" or better to show proficiency.

REQUIRED TEXTBOOK AND MATERIALS

N/A

LEARNING OUTCOMES

COURSE LEARNING OUTCOMES and OBJECTIVES

Course Objective: The aim of this course is to introduce students to the foundation of computer science concepts. In particular, students will demonstrate an understanding of basic concepts in algorithms, computer organization and architecture, operating system, computer networks, and database management system.

Course Outcomes:

- Students will demonstrate knowledge of digital logic analysis and design
- Students will demonstrate knowledge of computer organization and architecture
- Students will demonstrate knowledge of operating systems principles
- Students will demonstrate knowledge of computer network concepts and protocols
- Students will demonstrate knowledge of complexity theory
- Students will demonstrate an understanding of computer algorithms
- Students will demonstrate knowledge of database analysis and design

PROGRAM/GEN ED LEARNING OUTCOMES (IF Applicable))

COURSE ASSESSMENT

LEARNING ACTIVITIES

Course Topics:

- Digital Logic Analysis and Design

- Computer Organization and Architecture
- Principles of Operating Systems
- Computer Network Concepts and Protocols
- Complexity Theory
- Analysis of Algorithms
- Database Analysis and Design

Class Format:

- Instructional Delivery via D2L and Tegrity
- Online Course Materials
- Discussion Topics
- Assignments
- Programing project and hands-on labs
- Final Exam

Student Responsibilities

1. Attend class regularly (if so enrolled) and participate in all online discussions.
2. Complete all reading assignments and all homework assignments.
3. Ask the instructor questions.
4. Send the instructor e–mail with both comments and questions.

Instructor Responsibilities

1. Give lectures on the course material at Tegrity.
2. Assign appropriate homework that illustrates the concepts of the course, and grade and return the homework in a timely manner with adequate explanation.
3. Give tests over the material and grade and return the tests in a timely manner
4. Provide a website that supports the course.
5. Provide at least four hours of office time primarily designated for assistance of students in this class, at times expected to be convenient for the students. It is expected that the instructor be available to the students during these hours.
6. Reply promptly (within one business day) to all student e–mail communications.

COURSE EVALUATION

GRADED LEARNING ACTIVITIES	Percentage	Points
Programing projects and Hands-on Labs		20
Assignments		10
Section Tests (4 tests)		40
Final Exam		30
TOTAL		**100**

Percentage Range	Final Grade
90-100%	A
80-89%	B
70-79%	C
60-69%	D
59% and below	F

ADMINISTRATIVE POLICIES AND ACADEMIC RESOURCES

CSU DISABILITY POLICY

If you have a documented disability as described by the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973, Section 504, you may be eligible to receive accommodations to assist in programmatic and/or physical accessibility. We recommend that you contact the Office of Disability Services located in Schuster Student Success Center, Room 221, 706-507-8755 as soon as possible. Students taking online courses can contact the Office of Disability services at http://disability.columbusstate.edu/. The Office of Disability Services can assist you in formulating a reasonable accommodation plan and in providing support. Course requirements will not be waived but accommodations may be able to assist you to meet the requirements. Technical support may also be available to meet your specific need.

ACADEMIC INTEGRITY

All students are expected to recognize and uphold standards of intellectual and academic integrity. As a basic and minimum standard of conduct in academic matters that students be honest and that they submit for credit only the products of their own efforts. Both the ideals of scholarship and the need for fairness require that all dishonest work be rejected as a basis for academic credit. They also require that students refrain from any and all forms of dishonorable or unethical conduct related to their academic work.

Students are expected to comply with the provisions of Section III, "Student Responsibilities," of the Columbus State University Student Handbook. This specifically includes the sections on "Academic Irregularity," and "Conduct Irregularity." In particular, the Columbus State University Student Handbook states:

"No student shall give or receive assistance in the preparation of any assignment, essay, laboratory report, or examination to be submitted as a requirement for any academic course in such a way that the submitted work can no longer be considered the personal effort of the student submitting the work."

Examples of Academic Dishonesty include but are not limited to: Plagiarism (see definition below), giving or receiving unauthorized assistance on exams, quizzes, class assignments or projects, unauthorized collaboration, multiple submissions (in whole or part) of work that has been previously submitted for credit.

Plagiarism is any attempt to represent the work or ideas of someone else as your own. This includes purchasing or obtaining papers from any person and turning them in as your own. It also includes the use of paraphrases or quotes from a published source without properly citing the source. All written assignments may be submitted for textual similarity review to Turnitin.com for the detection of plagiarism.

Please be aware that anyone caught cheating or plagiarizing in this class will receive a "0" for the assignment/exam and may receive a "0" for the course.

STUDENT COMPLAINT PROCESS

Information and resources for student complaints and academic appeals are located at the following link on the Columbus State University website http://aa.columbusstate.edu/appeals/.

COURSE ATTENDANCE POLICY

Students are required to take part in the discussion related to each chapter through D2L.

TECHNICAL RESOURCES

HARDWARE REQUIREMENTS
How do I know if my computer will work with D2L?

SOFTWARE REQUIREMENTS
An- office suite such as Microsoft Office or Open Office
- To open PDF files you might need Acrobat Reader
- Browser Plugins (Pdf files, QuickTime files, Mp4 files) can be usually be obtained at the browsers website.
  Google Chrome
  Firefox
  Safari
  Internet Explorer (Caution: IE is often problematic for D2L-CougarVIEW)

If you need technical support or need assistance configuring your computer, you can refer to the link located in the "Support Resources" widget located on your "My Home" and your "Course Home" pages. If you cannot solve your problem after reviewing the knowledge base help pages, you can call help center 24-7 and talk to a Help Center agent. The number is 1-855-772-0423.

Library Resource Statement

COLLEGE SPECIFIC SECTION

N/A

COURSE SCHEDULE

Tentative Class Schedule

Weeks	Subjects	Assignment/test	Programing and Lab
1 (August 17– 23)	Class Introduction (Tegrity Video)	Acknowledgement and self-introduction through Tegrity.	
2 (August 24 – 30)	Ch1:Digital Logic Circuit		
3 (September (8/31) – 6)	Ch2:Introduction to computer architecture and organization		Circuit design lab
4 (September 7– 13)	**September 7: Labor day break** Ch3:Computer performance and evaluation		

5 (September 14 – 20)	Ch4:Top level view of computer function, cache and memory	Assignment 1: Computer Architecture	
6 (September 21 – 27)	Ch5: Intro do OS	Test 1-Computer Architecture	
7 (Sep. 28 – Oct. 4)	Ch6: Synchronization and deadlock		
8 (October 5 – 11)	Ch7: Memory and storage management	Assignment 2: Operating System	
9 (October 12 – 18)	Ch8: Intro to computer network and application layer	Test 2-OS	Network Socket Programming
10 (October 19 – 25)	Ch8: Intro to computer network and application layer		
11 (Oct. 26 – Nov.1)	Ch9: Transport layer and network layer (1)		
12 (November 2 – 8)	Ch10: Network layer (2) and data link layer	Assignment 3: Computer network	
13 (November 9 – 15)	Ch11: Computer algorithm design and analysis	Test 3-Network	Network hands-on lab
14 (November 16 – 22)	Ch12: Complexity theory	Assignment 4: computer algorithm design and analysis	
15 (November 23 – 29)	**Nov. 23-28: Thanksgiving break** Ch13: Introduction to DBMS	**Test 4-Algorithm**	
16 (November 30- December 6)	Ch14: Relational database and query	Assignment 5: database management	