Course Objectives:  
By the end of this course students are expected to:

1. Explain in systems terms the fundamental characteristics and components of computer and telecommunications hardware, and system software, and demonstrate how these components interact.  [1,2,7]
2. Provide an overview of peripheral devices and their function.  [1,2,7]
3. Demonstrate an understanding of the concepts of computer hardware architectures.  [1,2,4,7]
4. Demonstrate an understanding of system software components and interactions.  [1,2,4,7]
5. Demonstrate an understanding of the major concepts in operating systems, including process definition, concurrent processing, memory management, scheduling, interrupt processing, security, and file systems.  [1,2,7]
6. Demonstrate an understanding of the requirements for interoperability and systems integration.  [1,4,5,7]

Numbers in brackets refer to method(s) used to evaluate the course objective.

Relationship to Program Outcomes: (only items in dark print apply) 
This course supports the following Computer Science Program Outcomes, which state that our students at the time of graduation are expected to:

1. Posses knowledge of the fundamentals of mathematics, science, and technology.  [1-6]
2. Be able to use modern computational tools and techniques in the practice of computer science.  [3,4,5,6]
3. Be able to develop logically sound and efficient algorithms.  [3,4]
4. Be prepared to implement algorithms in multiple programming languages, on multiple hardware platforms, and in multiple operating system environments.  [3,4,6]
5. Be able to perform analysis, design, implementation, testing, and maintenance of computer-based systems, stressing software engineering principles.  
6. Be prepared to seek continuing professional development, graduate studies, or professional certifications related to computer science.  
7. Demonstrate effective written, visual and oral communication skills.  [1-6]
8. Posses an educational background to understand the global context in which computer science is practiced, including:
   a. Knowledge of contemporary issues related to computer science;  
   b. The impact of computers on society;  
   c. The role of ethics in the practice of computer science.  
9. Be able to contribute effectively as members of a project development team.  
10. Recognize the need to pursue continued learning throughout their professional careers.  

Numbers in brackets refer to course objective(s) that address the Program Outcome.

Prepared By: Stephen B. Rainwater  Date: 11/22/04
Revised By: Sumit Ghosh  Revised: 29 August 2007
The University of Texas at Tyler
Bachelor of Science in Computer Information Systems

Syllabus

Course Objectives: By the end of this course students are expected to:

1. Explain in systems terms the fundamental characteristics and components of computer and telecommunications hardware, and system software, and demonstrate how these components interact. [1,2,7]
2. Provide an overview of peripheral devices and their function. [1,2,7]
3. Demonstrate an understanding of the concepts of computer hardware architectures. [1,2,4,7]
4. Demonstrate an understanding of system software components and interactions. [1,2,4,7]
5. Demonstrate an understanding of the major concepts in operating systems, including process definition, concurrent processing, memory management, scheduling, interrupt processing, security, and file systems. [1,2,7]
6. Demonstrate an understanding of the requirements for interoperability and systems integration. [1,4,5,7]

Numbers in bracket refer to method(s) used to evaluate the course objective.

Relationship to Program Outcomes: (only items in dark print apply)

This course supports the following Computer Information Systems Program Outcomes, which state that our students at the time of graduation are expected to:

1. Be prepared to contribute immediately as information systems professionals [1-6]
2. Be able to design and implement information systems that satisfy user requirements [6]
3. Demonstrate effective written, visual, and oral communication skills [1-6]
4. Understand the global context in which computer information systems are practiced including:
   a. Contemporary issues related to business and technology [1-6]
   b. The impact of computers on society
   c. The role of ethics in the practice of information systems profession [1]
5. Be able to contribute effectively as members of systems development teams
6. Recognize the need to pursue continued learning throughout their professional careers

Numbers in brackets refer to course objective(s) that address the Program Outcome.

Prepared By: Stephen B. Rainwater       Date: 11/22/04
Revised By: Sumit Ghosh                Revised: 29 August 2007
Course Catalog Description and Topics:

Introduces the concept of computers and information systems by presenting the process of computation as a hierarchy of virtual machines, beginning with the hardware and moving upward through various levels of increasingly sophisticated software.

1. Origin of modern computers
2. Need for different levels in computer organization, Chapter 1
3. Numbering system in computers, binary, ASCII, octal, hex, decimal, floating-point, exponential, Appendix A and B
4. Computer arithmetic, Appendix A
5. Digital logic, Karnaugh map, Chapter 3
6. Instruction set and assembly, Chapter 5
7. Memory hierarchy and management, and virtual memory, Chapter 2
8. Von Neumann, Atanasoff, Shannon, and computer architecture, Chapter 1
9. I/O sub-system and Buses, Chapters 2 and 3
10. RISC, CISC, Pipelining, and Superscalar, Chapter 2
11. Networking, discussions in the class
12. WWW and e-commerce, discussions in the class
13. Human-computer interaction, discussions in the class
14. Intellectual property issues, discussions in the class

Textbook:

Pre-requisite: As listed in the catalog

Grading:

Homeworks (approx. 1 every 2 weeks) 20%; In-class midterm I 20%;
In-class midterm II 20%;
Final exam 40%

A grading curve will be followed in this course to ensure fairness.

Graduate Teaching Assistant:

GTA: Graduate student, Srilakshmi Malyalam (tentatively), will serve as the graduate teaching assistant for this class.
Office hours TBD.

Miscellaneous:

1. NO late homework will be accepted (you receive a zero), (2) Homeworks must be handed in personally, (3) Calculators are allowed, (4) There are NO make-up exams, (5) Homework solutions will be provided to you after the due date, (6) Please come to class, your interaction will make the class lively, and there are several topics that are beyond the scope of the textbook, (7) Midterm 1 and Midterm 2 exam schedules will be set, following discussion in class, so please make sure you are regularly attending classes.
UNIVERSITY OF TEXAS AT TYLER

ADDITIONAL POLICIES:

Plagiarism:
Unless otherwise specified, all work submitted for a grade must be completed by you - no group effort. Plagiarism will result in disciplinary actions. To spare yourself accusations of plagiarism-

1. Do not show another student a copy of your work before it has been graded. The penalties for permitting your work to be copied are the same as the penalties for copying someone else’s work.
2. Do not leave printouts of your work where other students may pick them up.

Students Rights and Responsibilities
To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: http://www.uttyler.edu/wellness/StudentRightsandResponsibilities.html

Grade Replacement/Forgiveness
If you are repeating this course for a grade replacement, you must file an intent to receive grade forgiveness with the registrar by the 12th day of class. Failure to do so will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates will receive grade forgiveness (grade replacement) for only three course repeats; graduates, for two course repeats during his/her career at UT Tyler.

State-Mandated Course Drop Policy
Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the 12th day of class (See Schedule of Classes for the specific date).

Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Registrar's Office and must be accompanied by documentation of the extenuating circumstance. Please contact the Registrar's Office if you have any questions.

Disability Services
If you have a disability, including a learning disability, for which you request disability support services/accommodation(s), please contact Ida MacDonald in the Disability Services office so that the appropriate arrangements may be made. In accordance with federal law, a student requesting disability services/accommodation(s) must provide appropriate documentation of his/her disability to the Disability Services counselor. In order to assure approved services the first week of class, diagnostic, prognostic, and prescriptive information should be received 30 days prior to the beginning of the semester services are requested. For more information, call or visit Disability Services located in the University Center, Room 3150. The telephone number is (903) 566-7079. Additional information may also be obtained at the following UT Tyler Web address: http://www.uttyler.edu/disabilityservices.

Student Absence due to Religious Observance
Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities
If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement:
It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

Emergency Exits and Evacuation:
Everyone is required to exit the building when a fire alarm goes off. Follow your instructor’s directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do Not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.