

**ITM 301—Introduction to Contemporary Operating Systems and Hardware I**

**Faculty Information:**

**Professor:** Louis F. McHugh IV

**Office:**  Wheaton, IL (Rice Campus)

**Telephone:** (630) 682-6040 (Office—Rice Campus)

**Email:**  [lmchughi@iit.edu](mailto:lmchughi@iit.edu) (Preferred Method of Contact)

**Office Hours:** By Appointment via [louismchugh.youcanbook.me](file:///C:\Users\Louis\Desktop\Teaching\Old\Summer2014\louismchugh.youcanbook.me)

**Online Hours:**  Skype by Appointment via [louismchugh.youcanbook.me](file:///C:\Users\Louis\Desktop\Teaching\Old\Summer2014\louismchugh.youcanbook.me)

**Applicability:**

This tentative syllabus will apply for Fall 2014 sections of IT-301 & ITM 301

**Prerequisites:**

There are no specific prerequisite courses. However, a basic knowledge of the PC and use of operating systems is necessary.

**Credits:**

ITM-enrolled students will receive, upon successful completion of the course, 3 semester hours of credit.

IT-enrolled students will receive, upon successful completion of the course, 4.9 CEU’s

**Lecture Day, Time, and Location:**

Monday 6:00pm—9:30pm

Room 247-Second Floor of IIT Rice Campus, 201 E Loop Road, Wheaton, IL 60189

**Laboratory Day, Time, and Place:**

Laboratory activities will be integrated with the lectures to be held at Rice Campus and completed on your own.

**Course Schedule:**

This schedule is at the end of syllabus.

**Required Text & Required Course Supplies:**

A+ Guide to Managing & Maintaining Your PC Hardcover: 1344 pages

Publisher: Course Technology; 8th edition (2014)

Language: English

ISBN-10: 1133135080 ISBN-13: 9781133135081

**Course Catalog Description:**

Students study the basics of computer architecture and learn to use a contemporary operating system. Hardware requirements, microcomputer components, software compatibility and system installation and options are covered, along with post-installation topics, storage, security and system diagnosis and repair. (2-2-3)

**Course Objectives:**

Each successful student will demonstrate foundation knowledge and application of the following skills:

* History of modern computing and the Internet
* Electricity and power supplies
* How computers actually work, starting from the i4004 microprocessor
* Numbering systems (Base2, Base10, Binary, Hex)
* Processors from the i4004 to the Intel i7
* Experience with motherboards, buses, architecture, memory, etc.
* Experience with storage, monitors, and other peripherals
* Operating systems and architecture (Windows, Linux, and Mac)
* Troubleshooting hardware and software
* Batch commands, & Scripting language
* Networking, physical media, devices, protocols, standards
* Information Security Topics
* OS Utilities, Cloud computing
* Laws, regulations, and compliance frameworks that affect IT professionals
* Current events in computing, especially related to security

**Course Outcomes:**

The course is a foundation course in the basics of PC functioning from a hardware level to the upper level operating system. It is intent is to serve as a basis for practical studies in other topics in IT.

Upon completion, a student should be able to understand how a PC functions be able to troubleshoot and repair a PC, and understand its workings in a networked environment from a hardware level to OS level. As well, as be comfortable understanding concepts of Linux, virtualization, servers, and tools for managing IT.

**Blackboard – The IIT Online Classroom:**

We will use IIT's Blackboard system <https://newblackboard.iit.edu> to communicate, submit homework, ask questions, and get feedback. Each student should have been notified of his or her Blackboard account for this course. If you have not been notified, go to above web page where there is contact information. Be familiar with how to use Blackboard.

**Readings:**

Readings for the class will be assigned from the textbook as well as in the form of handouts or online reading. It is essential that you do all readings before coming to class on the assigned date. The readings and taking notes are necessary and integral part of the class and will form the basis for any class discussions on the topic. Specific readings are assigned by topic above. Online resources will be linked from Blackboard or will be posted on Blackboard.

**Course Notes:**

Copies of the course lecture notes in the form of a PDF of the PowerPoint presentation accompanying each lecture will be provided for each student on Blackboard. This should be useful if you must miss a class. You should be aware that note taking is encouraged and should help your understanding of the material.

**Grading & Evaluation Criteria:**

The class has 2 tests, one midterm 300 points, and 1 final 200 points with a final practical worth 100 points. There will be 20 assignments/in-class labs (Do not worry they are not long) also worth 15 points each. The grading scale is a straight point based with a total of 900 points.

300 Points Midterm Exam

300 Points Final Exam (200 Written+100 Practical)

300 Homework/Lab Assignments

900 Total points + available extra credit (if obtained)

**NOTE: I will not allow any makeup of tests, quizzes, or homework unless prior notification is given. You must get approval via e-mail ahead of time.**

**Grading Scale:**

A – 93 and up

B – 80 to < 93

C – 70 to < 80

D – 60 to < 70

F – 59 below

Pass Fail grade >=70%

**Extra Credit Project:**

The Instructor will provide students with an opportunity to earn up to 50 points in extra credit. This extra credit project will be a seven to ten-page paper, whose topic is selected by the student and approved by the instructor. The Extra Credit Project must be arranged with the instructor, prior to starting it and it will be due the same day as the Final Exam at the end of the Semester.

**Extra Credit Certifications:**

The Instructor will provide students with an opportunity to earn up to 15 points in extra credit. For the completion of any, IT related Certifications during this class (not ones you already have obtained). The list is provided on Blackboard and you will be given 7.5 points for each one completed.

**Student Responsibilities:**

Class attendance and active participation are essential if students are to receive maximum benefit from the class. Participation requires preparation including completion of reading, labs, assignments, and exams by the due dates. If you cannot attend class or complete assignments, labs, or exams on time, please let the instructor know beforehand so that we can discuss alternative strategies. It is the student’s benefit to use their time wisely whether it is in preparation for class, during scheduled class, or in the lab. When students are in any IIT lab environment, they should abide by the college policies. Questions and comments are welcome.

ITM Student Resources: <http://blogs.iit.edu/itm_loopback/student-resources/>

Graduate and Undergraduate Student Handbooks:

<http://blogs.iit.edu/itm_loopback/2014/08/23/new-itm-student-handbooks-for-fall-2014/>

**ADA Statement:**

Reasonable accommodations will be made for students with documented disabilities. In order to receive accommodations, students must obtain a letter of accommodation from the Center for Disability Resources. The Center for Disability Resources (CDR) is located in 3424 S. State St., room 1C3-2 (on the first floor), telephone: 312.567.5744 or disabilities@iit.edu

**Academic Policy:**

Any violations of IIT policies regarding academic honesty and or integrity will be referred automatically to the appropriate college authorities for disposition. Please see appropriate pages in the college catalog for definitions and regulations. Any academic dishonesty (cheating) will result in either (1) a zero (0) for the assignment, program, test, quiz or exam, or (2) a failing grade for the course, depending on the severity of the dishonesty. *Bottom-line: Do not do it.*

Student Handbook (page 28 for the academic honesty policy)

<http://www.iit.edu/student_affairs/handbook/pdfs/handbook_fy_14.pdf>

**Withdraw Policy:**

Missing three or more assignments and or labs before the Mid-term will result in the student withdrawn from the class for non-pursuit of Course Objectives. No longer attending class does not constitute an automatic withdrawal.

**Incomplete Policy:**

Incomplete grades are generally not given without sound reason and documented evidence as described in the IIT Student Handbook. In all cases, for a student to receive an incomplete, he or she must be passing and must have a completed a significant portion of the course. If an incomplete grade is given, the student must make up all the work by the date agreed upon by them and the instructor.

**Classroom behavior:**

During the class time, considerate conduct by all persons is important to a favorable learning environment. Any infringement on the rights of others to get an education will be dealt with in an appropriate manner. Please set all electronic devices such as cell phones or pages to silent modes. Do not let your phone go off in the class. If you have to take a call, please step out in the hallway.

**Note: If you develop, some issue or outside issue develops please come and see me sooner than later. Usually some compromise or accommodation can be reached. Help me to help you solve any problem you may have.**

**Academic Resource Center:**

The Academic Resource Center (ARC) is a center of study for undergraduate students as well as a great resource for graduate students and faculty. The ARC provides the following free services:

- Peer tutoring for a wide range of courses

- Exam reviews

- Supplement Instruction

- Workshops and Seminars

- Group study

- Computing and Printing

**Location**: Hermann Hall Building-First Floor (Northwest Corner) Room HH-112

**Telephone**: (312) 567-5216

**Email:** [arc@iit.edu](mailto:arc@iit.edu)

T**entative Schedule of Topics/Readings:**

|  |  |
| --- | --- |
| 08/25/14 | Chapter 1 First Look at Computers and Tools |
| 09/01/14 | Chapter 2 Working Inside the Computer (No Class Labor Day) |
| 09/08/14 | Chapter 4 All About Motherboards |
| 09/15/14 | Chapter 5 Supporting Processors and Upgrading Memory |
| 09/22/14 | Chapter 6 Supporting Hard Drives |
| 09/29/14 | Chapter 8 Supporting I/O & Storage Devices |
| 10/06/14 | Chapter 13 Troubleshooting Hardware Problems |
| 10/13/14 | Mid-Term Exam? (No Class—Fall Break Day) |
| 10/20/14 | Chapter 9 Satisfying Customers’ Needs |
| 10/27/14 | Chapter 3 Intro to Windows OS, Chapter 7 Installing Windows |
| 11/03/14 | Chapter 10 Maintaining, Windows Chapter 11 Optimizing Windows |
| 11/10/14 | Chapter 12 Troubleshooting Windows and Applications  Chapter 14 Troubleshooting Windows Startup Problems |
| 11/17/14 | Chapter 15 Connecting to and Setting up a Network  Chapter 16 Networking Types, Devices, and Cabling |
| 11/24/14 | Chapter 18 Security Strategies |
| 12/01/14 | Chapter 19 Supporting Notebooks or (based on classes input)  Chapter 20 Mobile Devices and Client-side Virtualization |
| 12/08/14 | Final Exam 5-7PM |