Instructor: Dr. Nikolay Metodiev Sirakov   **Office:** Bin 322
Office Hours: M 03PM-04PM   **E-mail:** Nikolay.Sirakov@tamuc.edu
                  Th. 2:30PM-4:30PM   **Office Phone:**   903 886 5943
                  F 9AM-11AM
         Additional by appointment

For web enhancement materials, please visit: **URL:** http://faculty.tamuc.edu/nsirakov

NOTE: Before enrolling in this course, you are expected to have completed computing and a programming language course with at least C. Also, the teacher assumes you have a good programming skills. If you do not have this background, please drop this course **Now.**
All students are required to have an email account. If you do not have one, check in the Computer Science office and have one assigned. The preferred method of communicating with the instructor is through email.

COURSE DESCRIPTION
Text: **Assembly Language for Intel-Based Computers, 5th, 6th , 7th Edition Kip R. Irvin, Prentice Hall**
Pipelining and global/local descriptor table and concepts are not given in the 6th and the 7th edition.
My lectures and the web posted materials are needed as well, and will help you to learn the material.

Pre-requisite: CSCI 515
Course Content: Boolean Operations and Functions; Basic Circuits and Logic; Adder, Memory, Digital Numbers Generation and Addition; IA-32 Processor Architecture; Assembly Language Fundamentals; Data Transfer and Addressing; Arithmetic; Array processing; Stacks; Passing parameters through the stack; links to high level languages.

(SLO516.1): Students will demonstrate knowledge of the Binary, Decimal, Hexadecimal numbering systems be able to convert from one system to another and demonstrate knowledge of two's complement notation.
(SLO516.2): Students will demonstrate knowledge of basic Computer Organization: design logic; digital diagrams, and basic circuits and gates, and the link between Boolean functions, circuits, processor and machine code.
(SLO516.3): Students will demonstrate knowledge of the concepts of machine instructions; interrupts; assembly language programming, assembly, linking and running of a program; I/O devices; memory mapped I/O; assembly language addressing modes.
(SLO516.4): Students will demonstrate knowledge of the concepts of jumps, flags, subroutines, procedures, stacks, shifts, memory search and data access and management;
(SLO516.5): Students will demonstrate knowledge of the concepts of arrays, addressing modes , memory and data management, indirect addressing.
(SLO516.6): Students will demonstrate knowledge of the concepts of advanced procedures, local variables, stack parameters, strings, and links to higher level languages.
The instructor will include this semester the Consensus Theorem along with the half adder and adder.

COURSE EVALUATION: Basis for Evaluation:

In-class exam	- 34%
Program	- 18%
Quizzes work	- 14%
HW	- 10%
Final exam	- 24%

Grading Policy: *A:*   100%- 90%
                B: 89% - 80%
                C: 79% - 70%

       D: 69% - 60%
       F: Less than 59 %

The professor reserves the rights to reward students for continuous hard work.

The instructor reserves the right to drop student for not attending eight or more classes, although the action is not automatic and the student will be noticed about that.

Additional Assignments: In class check problems**;** Home Practice Problems**;** Extra Credit Problems.
The programs are to be submitted in an electronic format, all other assignments in a hard copy.

Final Test **Section:** 3E/4E **Date:** M/W May 9/11 2016	**Time:** 4:30PM-6:30PM

COURSE POLICIES

Programs: Programming is a part of this class. The only way to learn to program is to sit down and write programs. The next thing to do is make them work **correctly**. The knowledge obtained from reading and lectures only provides you with theoretical basis; you have to actually do the programming in order to learn.

Programming grades: Programs will receive a letter grade based on the following criteria:

    The program compiles, executes, and produces the required correct results $\approx$ 95%.

    The program compiles, executes, and produces the output with minor errors $\approx$ 85%.

    The program compiles and executes but does not produce the required output $\approx$ 75%.

    The program is a good attempt but will not compile without errors $\approx$ 65%.

Programs with copied code or other cheating (all or in part) receive grade 0.

A program with extra features, fancy output will receive extra score.

A program with sloppy coding or editing, no comments, spacing, etc may have points deducted.

The professor reserves the rights to reward students for continuous hard work.

Short quizzes: *are to be solved independently during the class period. No makeup is allowed.*

Exams: *The in-class exams will be given roughly at regular intervals. Students will be informed of the test dates around a week in advance. The test will take one class period and will be given at the scheduled times only. No opportunity will be given to take the test at earlier or later times except in cases of formal institutional excuses as mentioned above.*

Makeup: *Except in the case of a formal institutional excuse, no individual makeup test will be permitted*.

Cheating: *test and quizzes results will be canceled in case of cheating, extra credit grades may be taken off.*

Students with Disabilities: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services; Texas A&M University-Commerce; Halladay Student Services Building; Room 303 A/D; Phone (903) 886-5150 or (903) 886-5835; Fax (903) 468-8148
StudentDisabilityServices@tamu-commerce.edu

All students enrolled at the University shall follow the tents of common decency and acceptable behavior conducive to a positive learning environment (See Student's Guide Handbook, Polices and Procedures, Conduct).

Only the way to successfully pass through this class is to study, study and study again.