



## SYLLABUS

<b>Course Title</b>	Information Technology Architecture
<b>Course Number</b>	ISM 253
<b>Number of Credits</b>	3 semester credits
<b>Course Dates</b>	8/18/20 - 10/10/20    Tuesday Evenings, Class Start Time 6 PM
<b>Instructor</b>	Steven Millet
<b>Email Address</b>	steven.millet@doane.edu
<b>Office Hours/Availability</b>	Email response immediate 10 am - 12 am. M - F, Outside of these hours, and Weekends variable / Available For Office Hours Before and After Class
<b>Textbook Information: (e.g. title, edition, publisher, ISBN)</b>	<b>Required Text:</b> <u>Introduction to Computing Systems: From Bits &amp; Gates to C &amp; Beyond</u> . By, Patt and Patel, 2004, McGraw-Hill , ISBN-10: 0072467509.
<b>Additional Course Materials</b>	Flash Drive recommended for backing up class material
<b>Course Description</b>	This course provides the hardware and software technology background necessary to enable students to understand computer architecture for effective use in the business environment. Students learn the various hardware designs, how to choose and organize hardware, fundamental operating systems concepts, and basic

	<p>networking components.</p> <p>Prerequisite: ISM 102 or competence.</p>
<b>Program Outcomes</b>	<p>a. Develop analytical and critical thinking skills to gather and analyze information, to identify and solve problems, to determine potential outcome alternatives, and to make appropriate decisions</p> <p>b. Recognize ethical issues involved in information technology and its management</p> <p>c. Understand information science and technology concepts and processes, their relationships to each other, and their relationships to existing and emerging computing technologies</p> <p>d. Develop the confidence and the skill to learn independently and apply existing and emerging computing technologies and processes</p> <p>e. Develop the confidence and the skill to solve an unknown problem and to efficiently research, learn, and apply a previously unknown topic or skill to a novel problem- solving situation</p>
<b>Course Learning Outcomes/Objectives</b>	<p>At the end of this course, the student should:</p> <ol style="list-style-type: none"> <li>1. Be familiar with the computer hardware and networking components.</li> <li>2. Have a basic understanding of the different kinds of operating systems software options available in business (i.e. Windows 95/98/2000/Vista/XP/8/10, Novell, Unix/Linux).</li> <li>3. Understand the basic design logic behind how a computer operates.</li> <li>4. Understand the variety of programming languages available to the business Software Developer (including Assembly Language).</li> <li>5. Understand the programming fundamentals behind the internal operation of a computer system. Central Processing Unit (CPU) and Arithmetic and Logic Unit (ALU).</li> <li>6. Have basic overview of computer programming fundamentals.</li> </ol>
<b>Technology Requirements</b>	<p><a href="https://www.doane.edu/faq/minimum-computer-requirements">https://www.doane.edu/faq/minimum-computer-requirements</a></p>

## Course Schedule

Week or Module	Topic	Content	Assessments Matched to Learning Outcomes	Due Date & Time
1	Intro to Computer Architecture	Course Overview	Lab Assignment #1	Week 2 by 6 p.m.
2	Computer fundamentals	Chapter 1	Lab Assignment #2 (LO 1-3)	Week 3 by 6 p.m.
3	Bits, Data Types and Operations / Data Logic Structures	Chapters 2 - 3	Lab Assignment #3 (LO 1-3)	Week 5 by 6 p.m.
4	Review	Midterm	Exam #1	
5	The Von Neumann Model	Chapter 4	Lab Assignment #4 (LO 3)	Week 6 by 6 p.m.
6	Assembly Language	Chapters 6 - 7	Lab Assignment #5 (LO 1-3)	Week 7 by 6 p.m.
7	Programming Concepts	Chapter 8	Exam #2	Week 8 by 6 p.m.
8	Project Presentations	In Class		

## Grading Assessments

Type of Assessment	Assignments	Grade Percentage
Weekly homework assignments (Labs)	5	20%
Exams	2	35%
Project Presentation	1	15%
Class Participation	weekly	10%

## Grade Scale

A+ = 97-100%    A = 94-96%    A- = 90-93%    B+ = 87-89%    B = 84-86%    B- = 80-83%  
C+ = 77-79%    C = 74-76%    C- = 70-73%    D+ = 67-69%    D = 64-66%    D- = 60-63%  
F= 59% or below

<b>Participation Policy</b>	A student is expected to be prompt and regularly attend on-ground classes in their entirety. Regular engagement is expected for on-line courses. Participation in class discussions is an integral part of your grade.
<b>Study Time</b>	Expectation of the amount of time the course requires students to spend preparing and completing assignments. Typically, students could expect to spend approximately 12 hours a week preparing for and actively participating in this 8-week 3 credit hour course. This actual time for study varies depending on students' backgrounds.
<b>Late Work</b>	Late work will be accepted, if for an excused reason with no reduction in grade.

<b>Submitting Assignments</b>	Assignments submitted during class time.
<b>Communication Policy including Assignment Feedback</b>	Emails will be responded to by the end of the day M - F. Assignments will be returned the week following their due date.
<b>Academic Integrity Policy</b>	<p>Doane University expects and requires all its students to act with honesty and integrity and respect the rights of others in carrying out all academic assignments. Academic dishonesty, the act of knowingly and willingly attempting or assisting others to gain academic success by dishonest means, is defined in four categories:</p> <ol style="list-style-type: none"> <li>1. Cheating - "Intentionally using or attempting to use unauthorized information or study aids in an academic exercise."</li> <li>2. Fabrication - "Intentional and unauthorized falsification of invention or any information or citation in an academic exercise."</li> <li>3. Facilitating Academic Dishonesty - "Intentionally or knowingly helping or attempting to help another to commit an act of dishonesty," and/or coercing others to do the same.</li> <li>4. Plagiarism - "Intentionally or knowingly representing the words or ideas of another as one's own in any academic exercise," in both oral and written projects.</li> </ol> <p><i>Gehring, D., Nuss, E.M., &amp; Pavela, G. (1986). Issues and perspectives on academic integrity. Columbus, OH: National Association of Student Personnel Administrators</i></p> <p>For more information on the sanctions for academic dishonesty, please visit the website:  <a href="http://catalog.doane.edu/content.php?catoid=18&amp;navoid=1448#Academic_Dishonesty">http://catalog.doane.edu/content.php?catoid=18&amp;navoid=1448#Academic_Dishonesty</a></p>
<b>Academic Support</b>	<p>Please contact academicsupport@doane.edu  <a href="https://www.doane.edu/graduate-and-adult/academic-support">https://www.doane.edu/graduate-and-adult/academic-support</a></p>
<b>Disability Services</b>	<p><a href="https://www.doane.edu/disability-services">https://www.doane.edu/disability-services</a>  Doane University supports reasonable accommodations to allow participation by individuals with disabilities. Any request for accommodation must be initiated by the student as soon as possible. Each student receiving accommodations is responsible for his or her educational and personal needs while enrolled at Doane University.</p>

<b>Military Services</b>	<a href="https://www.doane.edu/graduate-and-adult/military">https://www.doane.edu/graduate-and-adult/military</a>
<b>Anti-Harassment Policy</b>	<a href="http://catalog.doane.edu/content.php?catoid=5&amp;navoid=452">http://catalog.doane.edu/content.php?catoid=5&amp;navoid=452</a>
<b>Grade Appeal Process</b>	<a href="http://catalog.doane.edu/content.php?catoid=5&amp;navoid=238">http://catalog.doane.edu/content.php?catoid=5&amp;navoid=238</a>
<b>Credit Hour Definition</b>	Doane University follows the federal guideline defining a credit hour as one hour (50 minutes) of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks (one semester), or the equivalent amount of work over a different time period (e.g., an 8-week term). This definition applies to courses regardless of delivery format, and thus includes in-person, online, and hybrid courses (combination of in-person and online). It also applies to internship, laboratory, performance, practicum, research, student teaching, and studio courses, among other contexts.
<b>Syllabus Changes</b>	Circumstances may occur which require adjustments to the syllabus. Changes will be made public at the earliest possible time.