

# COURSE SYLLABUS

## Computer Information Systems

**Course code:** CIS 161/3

**Term and year:** Spring 2024

**Day and time:** Mondays 8:15-11:00

**Instructor:** Jeff Medeiros, MBA Information Systems, BSc Marketing/Finance

Co-Founder, Keastone, Inc. IRIIS, a Software-as-a-Service Cloud Offering

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**Consultation hours:** immediately following class or as scheduled

<b>Credits US/ECTS</b>	3/6	<b>Level</b>	Introductory
<b>Length</b>	15 weeks	<b>Pre-requisite</b>	None
<b>Contact hours</b>	42 hours	<b>Course type</b>	General Education Course

### 1. Course Description

The purpose of the course is to introduce students to the foundational knowledge regarding computer information systems. Basic features and uses of computers and information systems will be taught for both the student's personal and professional benefit. The practical work will relate to the introduction and use of popular software applications (mainly MS Office Word, PowerPoint and Excel and related cloud-based features including Artificial Intelligence resources e.g., ChatGPT and BARD) and to the application of this new knowledge in choosing the most suitable computer configuration and applications for a given purpose. The course also touches on some "Humanities" as ethics and impacts of computing on society. The instructor will discuss theory and will require the completion of practical exercises to demonstrate basic system and application proficiency.

### 2. Student Learning Outcomes

Upon completion of this course, students should be able to:

- i. Understand and use basic terminology related to computer and information systems, including the history and how to anticipate future use and trends.
- ii. Understand and demonstrate the operation of the most widely used operating system - Microsoft 10
- iii. Understand and demonstrate basic skills using common personal productivity applications including Microsoft Office: Word, PowerPoint, and Excel and current AI systems: Chat GPT and BARD
- iv. Perform basic research using the Internet,
- v. Understand and discuss current social issues related to computer information systems,
- vi. Analyze and recommend the right computer configuration for a particular environment.
- vii. Using software applications to collaboratively collect, analyze and present data to support a thesis (using APA and MLA citation styles).

### 3. Reading Material

#### **Required Materials**

- Course readings will be provided during the course, mostly from the Internet or in the online NEO eLearning system. Readings should be completed prior to class for

which they are assigned. General reading topics are described in the course schedule below.

### **Recommended Materials**

- Additional readings will be posted in NEO during the semester as well.

### **4. Teaching methodology**

My method of teach is very simple in that I present the high-level concept of a topic and introduce it in the context in which the students would expect to see and experience the topic in their everyday life, be it person or professional.

I then introduce the elements of the topic, which often includes new vocabulary and concepts that are necessary when communicating with various information systems subject matter experts, as business students will be required to do when they enter the workforce.

It is understood that most students are not pursuing careers specifically in the Information Systems field, but it becomes more and more critical that professionals from all disciplines understand computing (and to not be afraid of it) to create a competitive advantage – or minimally to remain relevant.

From this new ‘toolbox’ of words and concepts we will apply them to specific activities. It is here where learning really happens, the ACT of applying data and information to a case or a practical exercise creates an indelible mark in your brain that you can recall and apply again and again in the future.

### **5. Course Schedule**

<b>Date</b>	<b>Class Agenda</b>
Session 1 Feb 5	<p><b>Topic:</b> Course Overview and Introduction to Information Systems</p> <p><b>Description:</b> Introduction to the course and AA’s eLearning system (NEO, where to find information and where assignments and grading will be posted and presented).</p> <p>General introduction to computers with a brief history lesson and the increasing speed of innovation, the general organization of CIS stakeholders and the basic elements and lifecycle of a typical Information System. General trends and directions of what to expect next will also be discussed.</p> <p><b>Reading:</b> PPT Slides</p> <p><b>Assignments/deadlines:</b> Come to Session 1 with valid NEO LMS – eLearning Management System – access to the school computer (ID/Password) and your computer, Join Class Slack Workgroup by Session 2</p>
Session 2 Feb 12	<p><b>Topic:</b> Hardware</p> <p><b>Description:</b> Overview of the building blocks of computing, starting with the hardware which is the enabler of making 0’s and 1’s (on and off switches) do all the things computers do today - leveraging processors, memory, storage, and various input and output devices. The power of quantum computing – a new mode of computing - will be discussed briefly.</p> <p><b>Reading:</b> PPT Slides, <a href="http://en.wikipedia.org/wiki/Computer">en.wikipedia.org/wiki/Computer</a></p> <p><b>Assignments/deadlines:</b> Review lesson 2 slides and complete any readings</p>

<p>Session 3 Feb 19</p>	<p><b>Topic:</b> Software/Operating Systems  <b>Description:</b> Overview of operating systems (the link between the hardware and applications) and software applications that provide specific functionality (the real recognizable and valuable work). This will include an introduction to the concept of databases which is how we can store data apart from an application for increased leverage.  <b>Reading:</b> PPT Slides, see NEO for articles on Software, Operating Systems, and Databases  <b>Assignments/deadlines:</b> Review lesson 3 slides and complete any readings</p>
<p>Session 4 Feb 26</p>	<p><b>Topic:</b> Networks and the Internet  <b>Description:</b> Overview of network architectures and its primary components with a focus on the Internet – a very specific network, providers of network services and how it all works together.  <b>Reading:</b> PPT Slides, see NEO for articles on Networks and the Internet  <b>Assignments/deadlines:</b> Review lesson 4 slides and complete any readings, Comparison Assignment – Evaluating alternatives when making decisions</p>
<p>Session 5 Mar 4</p>	<p><b>Topic:</b> Language of the Web, Browsers, Search Engines, and AI for 'search'  <b>Description:</b> Introduction of what makes up the content on the internet and how protocols are leveraged to create an open and shareable foundation which enabled the explosive growth and its universal access and use.  <b>Reading:</b> PPT Slides, see NEO for articles on the World Wide Web (WWW...aka the Web), Browsers and Search Engines.  <b>Assignments/deadlines:</b> Review lesson 5 slides and complete any readings</p>
<p>Session 6 Mar 11</p>	<p><b>Topic:</b> Security, Ethics and Privacy  <b>Description:</b> General introductory discussion about computing in society and the necessity to consider security of information and the lifecycle of data and proactive steps which need to be taken to protect systems and limiting access to data and keeping our computing environment 'healthy'. Ethical issues will also be discussed both as users and for businesses, including Facebook and Google as they become the monopolies of these modern times with almost complete access and control of our personal data.  <b>Reading:</b> PPT Slides, see NEO for articles on Computing in Society Today, Ethical/Privacy breaches (cases), and Google and Facebook – What do they know about us? The Cambridge Analytica Story (The Great Hack)  <b>Assignments/deadlines:</b> Review lesson 6 slides and complete any readings</p>
<p>Session 7 Mar 18</p>	<p><b>Topic:</b> Impact of Computing on Society + Review of Mid Term Exam Topics  <b>Description:</b> Further discussion following the prior week's discussion on Ethics and more broadly computing's impact on society – the promise of leveling the playing field for anyone who has access to the internet to participate as a competitive and productive member of society and the challenges this also presents, such as the bad actors leveraging social media platforms to manipulate populations of people using Artificial Intelligence (AI) and large volumes of personalized data. The lesson will end with a complete review of what needs to be understood to prepare for the Midterm.  <b>Reading:</b> PPT Slides, see NEO for articles on Current Events related to information systems impact on productivity, Internet penetration rates and its impact globally, Using Social media platforms to manipulate populations  <b>Assignments/deadlines:</b> Study for Midterm exam</p>
<p>Mid-Term Break Mar 25</p>	<p><b>MID TERM BREAK</b></p>

Easter Holiday April 1	<b>HOLIDAY</b>
Session 9 April 8	<p><b>Topic:</b> Mid Term Exam</p> <p><b>Description:</b> 40 questions, mostly T/F and Multiple Choice with up to 10 essay questions applying the knowledge learned during the semester. The exams are not intended to show your ability to memorize information...but to allow you to demonstrate your understanding of the information presented during the course.</p> <p><b>Reading:</b> N/A</p> <p><b>Assignments/deadlines:</b> N/A</p>
Session 10 April 15	<p><b>Topic:</b> Intro to Microsoft Office/365, Word, AI Systems, and Intro to Semester Project</p> <p><b>Description:</b> The second half of the course is focused on the practical development of the skills required to successfully use these applications while completing your studies here at AA AND to prepare you to be a value-added asset upon entering the workforce. The first session is to understand the 'logic' of Microsoft Office and specifically basic Word functionality.</p> <p><b>Reading:</b> PPT Slides, Video - Introduction to MS Office 365 and Word</p> <p><b>Assignments/deadlines:</b> In-class simple Word Activity to be uploaded to NEO the day before Lesson 11</p>
Session 11 April 22	<p><b>Topic:</b> Intro to PowerPoint and Online Presentation Software and Intro to Individual Assignment – Nonsense Thesis Perfectly formatted!</p> <p><b>Description:</b> The second session on practical skills is focused on the most used presentation software globally – MS PowerPoint and other, more innovative and impactful cloud-based presentation tools like Zoom and Prezi. Class also includes the introduction to the Individual Final Project where each student will create a perfectly formatted nonsense thesis paper to demonstrate their understanding and creation of a template to be used following the thesis guidelines for their School (e.g., School of Business, School of Journalism...)</p> <p><b>Reading:</b> PPT Slides, Video - Introduction to MS PowerPoint and latest features</p> <p><b>Assignments/deadlines:</b> Assigned Activity to be uploaded to NEO the day before Lesson 12</p>
Session 12 April 29	<p><b>Topic:</b> Intro to Excel - Math basics</p> <p><b>Description:</b> The third session will introduce the basic logic in which all spreadsheets are built; rows and columns and powerful built-in functions.</p> <p><b>Reading:</b> PPT Slides, Video - Introduction to MS Excel and latest features</p> <p><b>Assignments/deadlines:</b> 1<sup>st</sup> Basic Excel In-Class Activity to be uploaded to NEO before end of class. 2<sup>nd</sup> Advanced Excel Activity to be uploaded to NEO the day before Lesson 13</p>
Session 13 May 6	<p><b>Topic:</b> Advanced Excel - Database basics – Graphs</p> <p><b>Description:</b> Building on the introductory lesson on the basic logic of Excel, this class will consider more advanced features and functionality, including data exporting and importing, creating graphics, and using Macro's.</p> <p><b>Reading:</b> PPT Slides</p> <p><b>Assignments/deadlines:</b> Complete and Submit the Final Individual Assignment and complete the final team project.</p>

Session 14 May 13	<p><b>Topic:</b> Final project review</p> <p><b>Description:</b> This class time will be a working session to review the final projects with the instructor and to assess what is required to achieve the objectives and to identify and fix any deficiencies.</p> <p><b>Reading:</b> None</p> <p><b>Assignments/deadlines:</b> Following week, Final Presentation and Submission of Final Project documents and recorded video.</p>
Session 15 May 20	<p><b>Topic:</b> Final Project Presentations and Peer Review</p> <p><b>Description:</b> Student projects will have been submitted and during the class time students will watch the recorded videos of the other teams' presentations and giving feedback on their ability to demonstrate the skills defined in the activities.</p>

### 6. Course Requirements and Assessment (with estimated workloads)

Assignment	Workload (hours)	Weight in Final Grade	Evaluated Course Specific Learning Outcomes	Evaluated Institutional Learning Outcomes*
Class Participation	40	10%	All students are expected to participate in class. Expect your instructor to keep track of how often you contribute to class discussion (as a whole). To achieve all participation points, a student must take an <b>active</b> role on a regular basis.	See above section 2 i-vii
Homework and Quizzes	50	25%	Activities will include research and the application of the information discussed in the classroom and Practical exercises using commonly used personal productivity applications – principally Microsoft Office Word, PowerPoint and Excel	See above Section 2 i-vii
Midterm Exam	10	25%	Exams will be written, covering the materials discussed in class.	See above Section 2 i-vii

Final Team Project	30	20%	Three to Four person teams will choose a specific topic on interest and will follow the instructions given during the 9th week of the semester. The teams will be responsible for collaborating on the project and will use the software applications discussed and reviewed in class to COLLECT, ANALYZE, AND PRESENT their findings. The team will present their project on the last day of class during the 15th week of the semester. They will also submit the required files for review, which will represent each individual's contribution to the team effort, demonstrating their ability to effectively use these applications.	See above Section 2 i-vii
Final Individual Project	20	20%	Applying the practical knowledge using Excel and Word and research skills, properly prepare a mini-thesis paper to demonstrate these skills.	See above Section 2 ii-iv, and vii
<b>TOTAL</b>	<b>150</b>	<b>100%</b>		

\*1 = Critical Thinking; 2 = Effective Communication; 3 = Effective and Responsible Action

## 7. Detailed description of the assignments

**Assignment 1:** Personal computing environment inventory and audit

### Assessment breakdown

Assessed area	Percentage
Students will inventory their use of technology, including their smart phone, laptop/tablet, home computer and networking environment with a focus on understanding the importance of each component and knowing how it compares to their personal requirements as a user.	See Section 6 Homework and Quizzes
Other activities may be assigned and collectively will represent the course grade for Homework and Quizzes.	

**Assignment 2:** Multiple Microsoft Office Application Exercises

**Assessment breakdown**

Assessed area	Percentage
<p>Students will be given assignments using all the major Microsoft Office Applications – Word, PowerPoint, and Excel with the primary objective of demonstrating their knowledge and ability to use the most important features and functions necessary to create and submit work during their studies here at AAU and to be a productive team member when entering the workforce.</p> <ul style="list-style-type: none"> <li>- For Word, this will include finding and using templates, creating formal documents with proper citations (i.e., Research/Thesis Paper)</li> <li>- For PPT this will include finding and using relevant templates and inserting and formatting content to create an impactful presentation.</li> <li>- Finally, the spreadsheet application Excel will be used to demonstrate the students understanding of the power of a spreadsheet rows and columns structure and how the data can be stored and manipulated to create reports (i.e., income statements, budgets) data and to create “what if” scenarios with graphical output.</li> </ul>	<p>See Section 6 Homework and Quizzes AND Final Project</p>

**8 General Requirements and School Policies**

**General requirements**

All coursework is governed by AAU’s academic rules. Students are expected to be familiar with the academic rules in the Academic Codex and Student Handbook and to maintain the highest standards of honesty and academic integrity in their work.

**Electronic communication and submission**

The university and instructors shall only use students’ university email address for communication, with additional communication via NEO LMS or Microsoft Teams. Students sending e-mail to an instructor shall clearly state the course code and the topic in the subject heading, for example, “COM101-1 Mid-term Exam. Question”. All electronic submissions are through NEO LMS. No substantial pieces of writing (especially take-home exams and essays) can be submitted outside of NEO LMS.

**Attendance**

Attendance, i.e., presence in class in real-time, at AAU courses is default mandatory; however, it is not graded as such. (Grades may be impacted by missed assignments or lack of participation.) Still, students must attend at least two thirds of classes to complete the course. If they do not meet this condition and most of their absences are excused, they will be administratively withdrawn from the course. If they do not meet this condition and most of their absences are not excused, they will receive a grade of “FW” (Failure to Withdraw). Students may also be marked absent if they miss a significant part of a class (for example by arriving late or leaving early).

**Absence excuse and make-up options**

Should a student be absent from classes for relevant reasons (illness, serious family matters), and the student wishes to request that the absence be excused, the student should submit an Absence Excuse Request Form supplemented with documents providing reasons for the absence to the Dean of Students within one week of the absence. Each student may excuse up to two sick days per term without any supporting documentation; however, an Absence Excuse

Request Form must still be submitted for these instances. If possible, it is recommended the instructor be informed of the absence in advance. Should a student be absent during the add/drop period due to a change in registration this will be an excused absence if s/he submits an Absence Excuse Request Form along with the finalized add/drop form.

Students whose absence has been excused by the Dean of Students are entitled to make up assignments and exams provided their nature allows. Assignments missed due to unexcused absences which cannot be made up, may result in a decreased or failing grade as specified in the syllabus.

Students are responsible for contacting their instructor within one week of the date the absence was excused to arrange for make-up options.

**Late work:** No late submissions will be accepted – please follow the deadlines.

### **Electronic devices**

Electronic devices (e.g., phones, tablets, laptops) may be used only for class-related activities (taking notes, looking up related information, etc.). Any other use will result in the student being marked absent and/or being expelled from the class. No electronic devices may be used during tests or exams unless required by the exam format and the instructor.

**Eating** is not allowed during classes.

### **Cheating and disruptive behavior**

If a student engages in disruptive conduct unsuitable for a classroom environment, the instructor may require the student to withdraw from the room for the duration of the class and shall report the behavior to the student's Dean.

Students engaging in behavior, which is suggestive of cheating will, at a minimum, be warned. In the case of continued misconduct, the student will fail the exam or assignment and be expelled from the exam or class.

### **Plagiarism**

Plagiarism obscures the authorship of a work or the degree of its originality. Students are expected to create and submit works of which they are the author. Plagiarism can apply to all works of authorship – verbal, audiovisual, visual, computer programs, etc. Examples are:

- **Verbatim plagiarism:** verbatim use of another's work or part of it without proper acknowledgement of the source and designation as a verbatim quotation,
- **Paraphrasing plagiarism:** paraphrasing someone else's work or part of it without proper acknowledgement of the source,
- **Data plagiarism:** use of other people's data without proper acknowledgement of the source,
- **False quotation:** publishing a text that is not a verbatim quotation as a verbatim quotation,
- **Fictitious citation:** quoting, paraphrasing, or referring to an incorrect or a non-existent work,
- **Inaccurate citation:** citing sources in such a way that they cannot be found and verified,
- **Ghostwriting:** commissioning work from others and passing it off as one's own,
- **Patchwriting:** using someone else's work or works (albeit with proper acknowledgement of sources and proper attribution) to such an extent that the output contains almost no original contribution,
- **Self-plagiarism:** unacknowledged reuse of one's own work (or part of it) that has been produced or submitted as part of another course of study or that has been published in the past,
- **Collaborative plagiarism:** delivering the result of collective collaboration as one's own individual output.

At minimum, plagiarism will result in a failing grade for the assignment and shall be reported to the student's Dean. A mitigating circumstance may be the case of novice students, and the benefit of the doubt may be given if it is reasonable to assume that the small-scale plagiarism



was the result of ignorance rather than intent. An aggravating circumstance in plagiarism is an act intended to make the plagiarism more difficult to detect. Such conduct includes, for example, the additional modification of individual words or phrases, the creation of typos, the use of machine translation tools or the creation of synonymous text, etc. The Dean may initiate a disciplinary procedure pursuant to the Academic Codex. Intentional or repeated plagiarism always entail disciplinary hearing and may result in expulsion from AAU.

**Use of Artificial Intelligence and Academic Tutoring Center**

The use of artificial intelligence tools to search sources, to process, analyze and summarize data, and to provide suggestions or feedback in order to improve content, structure, or style, defined here as AI-assisted writing, is not in itself plagiarism. However, it is plagiarism if, as a result, it obscures the authorship of the work produced or the degree of its originality (see the examples above).

AAU acknowledges prudent and honest use of AI-assisted writing, that is, the use of AI for orientation, consultation, and practice is allowed. For some courses and assignments, however, the use of AI is counterproductive to learning outcomes; therefore, the course syllabus may prohibit AI assistance.

A work (text, image, video, sound, code, etc.) generated by artificial intelligence based on a mass of existing data, defined here as AI-generated work, is not considered a work of authorship. Therefore, if an AI-generated work (e.g. text) is part of the author’s work, it must be marked as AI-generated. Otherwise, it obscures the authorship and/or the degree of originality, and thus constitutes plagiarism. Unless explicitly permitted by the instructor, submission of AI-generated work is prohibited.

If unsure about technical aspects of writing, and to improve their academic writing, students are encouraged to consult with the tutors of the AAU Academic Tutoring Center. For more information and/or to book a tutor, please contact the ATC at: <http://atc.simplybook.me/sheduler/manage/event/1/>.

**Course accessibility and inclusion**

Students with disabilities should contact the Dean of Students to discuss reasonable accommodations. Academic accommodations are not retroactive.

Students who will be absent from course activities due to religious holidays may seek reasonable accommodations by contacting the Dean of Students in writing within the first two weeks of the term. All requests must include specific dates for which the student requests accommodations.

**9 Grading Scale**

Letter Grade	Percentage*	Description
A	95–100	<b>Excellent performance.</b> The student has shown originality and displayed an exceptional grasp of the material and a deep analytical understanding of the subject.
A–	90–94	
B+	87–89	<b>Good performance.</b> The student has mastered the material, understands the subject well and has shown some originality of thought and/or considerable effort.
B	83–86	
B–	80–82	
C+	77–79	<b>Fair performance.</b> The student has acquired an acceptable understanding of the material and essential subject matter of the course but has not succeeded in translating this understanding into consistently creative or original work.
C	73–76	
C–	70–72	
D+	65–69	<b>Poor.</b> The student has shown some understanding of the material and subject matter covered during the course. The student’s work, however, has not shown enough effort or understanding to allow for a passing grade in School Required Courses. It does qualify as a passing mark for the General College Courses and Electives.
D	60–64	

F	0-59	<b>Fail.</b> The student has not succeeded in mastering the subject matter covered in the course.
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\* Decimals should be rounded to the nearest whole number.

Prepared by: Jeff Medeiros, Date: January 5, 2024

Approved by:

Hana Hajova, Chair, Math and Computer Information Systems, Date: January 12, 2024

Approved by:

Jan Vašenda, Vice Dean, School of Business Administration, Date: January 25, 2024