

Computer Information Systems

Course code: CIS 161/1

Semester and year: Fall 2021

Day and time: Monday, 8:15-11:00

Instructor: Ing. Armend Qerimi, Phd cand.

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Consultation hours: Before the class (Online);

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

1. Course Description

The purpose of the course is to introduce students to the basic features and uses of computer and information systems. The course starts with an introduction to the history of computing, moves into the technical foundations of computing, and continues with a discussion of hardware, software and networks. The bulk of the class, however, relates to the introduction to and use of popular software applications, which will be useful to the students in their academic and professional careers. The course will conclude with a brief though necessary presentation of computer security issues, hacking, malicious activities and how to detect and protect ourselves against such threats.

2. Student Learning Outcomes

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

- Comprehend and have a clear understanding of how various types of data are represented in computers.
- Understand the function of basic hardware components of personal computers.
- Understand the role of various types of software.
- Understand the strategies of how to select or configure the most appropriate new computer (desktop and laptop) according to the student's needs.
- Compare technical characteristics of personal computers in commercial advertisements.
- Understand various types of networks and their basic technical characteristics.
- Understand the basic issues related to computer technology.
- Understand the computer's limitations and security threats and how to avoid such problems.
- Analyze a problem in the spreadsheet table.
- Create and present a short presentation on a given topic
- Understand the concepts of writing a longer document (thesis, research paper etc.) and exploiting styles and templates.

General Education Learning Outcomes

This is a general education course. Your general education core curriculum enables you to learn and practice the basics about the use of information systems that will become the foundation for learning and achieving success in your academic major.

3. Reading Material

Required Materials

- All materials can be accessed via NEO:
 - Ralph M. Stair, George W. Reynolds: Fundamentals of Information Systems (Online version will be provided via NEO)
 - Articles or additional materials provided in class and/or on NEO

Recommended Materials

- Recommendations will be provided during the semester via NEO as the aim is to cover the latest innovations on the Information technology world.

4. Teaching methodology

A combination of lectures and hands-on exercises will be used. The lectures will be accompanied by slides wherever possible. Active participation in discussions is encouraged, based on articles and book chapters, which the students read in advance. Students also get homework (at home or hands-on lab in class) related to the topics taught in the class. Students are also obliged to design and present a simple presentation on a given topic.

5. Course Schedule

Date	Online Coursework/ Assignment Due	Virtual Class Meeting
Week 1 September 6	<p>Topic: Course introduction and academic expectations; Introduction to Information Systems; Introductory discussion with topic “using technology to succeed”</p> <p>Description: We will walk through the syllabus and introduce the topics of this course along with the academic expectations for both students and professor. We will have a presentation about the information systems concepts and an open discussion about the use of information systems</p> <p>Assignments/deadlines: Verification of the login credentials and ability to upload assignments on NEO</p> <p>Due before class meeting: Syllabus review</p>	<p>Preparation:</p> <ul style="list-style-type: none"> -Questions about syllabus and class overall <p>Activities:</p> <ul style="list-style-type: none"> -Discussion about overall use of the technology – share of personal experiences
Week 2 September 13	<p>Topic: Computer and information systems concepts and evolution</p> <p>Description: We will go back in history and talk about the evolution of computers and information systems. Main focus will be to highlight the main events on the timeline which characterize the technology development.</p> <p>Reading: Article about the computer history timeline on https://www.livescience.com/20718-computer-history.html</p> <p>Due before class meeting: Completion of the assignment from Lesson 2</p>	<p>Preparation:</p> <ul style="list-style-type: none"> -Read the article mentioned on Reading -Questions related to the topic <p>Activities:</p> <ul style="list-style-type: none"> -Discussion about the computers and information systems evolution
Week 3 September 20	<p>Topic: Looking at computers: understanding the parts (Hardware) and architecture</p> <p>Description: We will talk about hardware components and their integration. Deep dive on the main components of the computer and their role on the computer performance. In particular we will talk about the characteristics of computer processors, memories, and storage</p> <p>Reading: Section 2: Hardware components from book Fundamentals of Information Systems</p>	<p>Preparation:</p> <ul style="list-style-type: none"> - Bring up questions related to the topic <p>Activities:</p> <ul style="list-style-type: none"> - Revision of Lesson 2

<p>Week 4 September 27</p>	<p>Topic: Computer software: Programs that let you work and play, Microsoft Words Description: We will discuss the application software, types and categories. Have an overview of application software development, stakeholders and development lifecycle from the business point of view. We will have an introduction to Microsoft Word application software Reading: Section 2: Overview of Software from book Fundamentals of Information Systems</p>	<p>Preparation: -Have access on the Microsoft Office particularly on Microsoft Word Activities: -In class exercise on Microsoft Word - writing a simple document according to predefined rules</p>
<p>Week 5 October 4</p>	<p>Topic: Word processing software: Writing a document, tips and tricks Description: We will discuss the business use of the word processing software and have an overview of the concepts and terminology. Have a Microsoft word application walk through to explore its functionalities. We will cover an introduction of general guidelines to properly write documents, which can be read and understood by others. Reading: will be provided during the class – depending on the office version Assignments/deadlines: Assignment 1 – write a document on Microsoft word application</p>	<p>Preparation: -Questions about the topic Activities: -Revision of the lesson 4 -In-class Microsoft word exercise</p>
<p>Week 6 October 11</p>	<p>Topic: System software: Operating systems and other utility programs, Microsoft Excel Description: We will have an introduction to System software types and categories. In particular we will discuss about the operating systems and other utility applications and their role on the functioning of the computer We will have an introduction to semester project requirements Assignments/deadlines: Think and explore the chosen topic for semester project</p>	<p>Preparation: -Questions about the assignment from lesson 5 Activities: -In-class exercise on Microsoft Excel -Semester Project: - Groups setup - Selection of topics</p>
<p>Week 7 October 18</p>	<p>Topic: Mid-term exam Description: Mid Term test covering the previous lectures from previous weeks</p>	<p>Preparation: -Review materials from previous lectures Activities: - Mid-term test</p>

Week 8 Mid-Term Break	MID-TERM BREAK	
Week 9 November 1	<p>Topic: Spreadsheet software applications; Business benefit of the use of software applications</p> <p>Description: We will discuss the business use of the Spreadsheet software and have an overview of the concepts and terminology. We will have a Microsoft excel application walk through to explore its functionalities.</p> <p>Assignments/deadlines: Assignment 2 – Create an excel spreadsheet which will analyze weather forecast based on real data</p>	<p>Preparation:</p> <p>-Decision if the initial selection of project topic is confirmed</p> <p>Activities:</p> <p>-In-class exercise on Microsoft Excel</p>
Week 10 November 8	<p>Topic: Introduction to Business Information systems and Decision support systems</p> <p>Description: We will have an introduction to business information systems, latest trends on electronic and mobile commerce.</p> <p>Reading: Section 5 and 6: Business information systems and Decision support systems from book Fundamentals of Information Systems</p> <p>Assignments/deadlines: None</p>	<p>Preparation:</p> <p>-Questions about the Test number 1</p> <p>Activities:</p> <p>-Discussion and review of the questions from test number 1</p>
Week 11 November 15	<p>Topic: Knowledge Management and Specialized Information Systems</p> <p>Description: We will have an introduction to knowledge management systems. Discuss the methods and tools, which support knowledge management and have a broad introduction about Artificial Management. We will cover a case study about the customer support at Canon company</p> <p>Reading: Section 7: Knowledge Management from book Fundamentals of Information Systems</p> <p>Assignments/deadlines: None</p>	<p>Preparation:</p> <p>-Questions about the topic</p> <p>Activities:</p> <p>-Open discussion about the knowledge management</p>
Week 12 November 22	<p>Topic: Networking and communication: Connecting computer devices, Microsoft PowerPoint</p> <p>Description: We will cover the basics on the networking and general communication between technological devices. How does technology communicate with each other, what are the types and methods used?</p>	<p>Preparation:</p> <p>- Questions from the topic</p> <p>Activities:</p> <p>-in class Microsoft PowerPoint exercise</p>

	<p>We will have an introduction to Presentation application with the focus on Microsoft PowerPoint application. How it's used, what are its functionalities, and how to create a proper presentation slides</p> <p>Reading: Section 4: Telecommunications and Networks from book Fundamentals of Information Systems</p> <p>Assignments/deadlines: None</p>	
<p>Week 13 November 29</p>	<p>Topic: Computers Security: basics on computer and internet protection</p> <p>Description: We will discuss the basics on computer security. How to keep ourselves protected when using computer devices which are connected on the internet. We will cover the types of attacks and threats which can compromise our information</p> <p>Assignments/deadlines: Final consultation of the semester project</p>	<p>Preparation:</p> <p>-</p> <p>Activities:</p> <p>-Open discussion about the computers security – share of personal experiences</p>
<p>Week 14 December 6</p>	<p>Topic: Semester project completion and presentation</p> <p>Description: We will have a presentation of the semester project where each group will present their work</p> <p>Assignments/deadlines: Semester project presentation</p> <p>Due before class meeting: Upload of the semester project document (Word document) and presentation on NEO</p>	<p>Preparation:</p> <p>- Semester project presentation preparation</p> <p>Activities:</p> <p>-Presentation of the semester project in class (mandatory activity)</p>
<p>Week 15 December 13 - final exam</p>	<p>Topic: Final Exam</p> <p>Description: The final exam will be multiple choice questions covering the whole semester</p> <p>Reading: Review course materials</p> <p>Assignments/deadlines: Final Exam</p>	<p>Preparation:</p> <p>-Review of previous lessons</p> <p>Activities:</p> <p>-Final Exam (timed)</p>

6. Course Requirements and Assessment (with estimated workloads)

Assignment	Workload (average)	Weight in Final Grade	Evaluated Course Specific Learning Outcomes	Evaluated Institutional Learning Outcomes*
Attendance and participation	30	10%	Students are expected to be in class, participate and submit in class work.	3
In class activities and homework	30	10%	Working in teams or individually on the topics assigned in class. Two (2) in-class activities are for trying the system and are not graded. The student understands how to write a document, a	2

			presentation and to work with spreadsheets based on requirements and topics.	
Computer history, Computer Hardware and Software (Test 1)	30	25%	Written test based on a topic from week 1 to week 7	1,2
Semester project delivery and presentation	30	20%	The student is able to write a paper presenting a given topic in a consistent way and to deliver a presentation based on the written paper and topic, in a concise and precise way.	1,2,3
Final Test	30	35%	The student is able to work with spreadsheets and use them to make in-depth analysis and business decisions. – Excel	1,3
TOTAL	150	100%		

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

7. Detailed description of the assignments

Assignment 1: In class *assignment*

Assessment breakdown

Assessed area	Percentage
<p>The students receive 7-10 in-class activities which require them to fulfill activities based on requirements. One activity will be for the student to play with the system and see how it works. One activity is for the students to write a simple text while keeping strict constraints, thus it cannot be graded because the weight is on maintaining the constraints and not on the text itself.</p> <p>Note that EACH taught element will be assessed in one or multiple assignments. Once being taught and tested independently it is assumed as understood and students should use the newly acquired information by default.</p> <p>Each lecture is followed by 30-60 minutes of practice in which students are asked to prove their understanding of the taught topic and information or to ask questions which will dissipate their uncertainties.</p>	
Word Processing	33.3%
Presentation	33.3%
Spreadsheets	33.3%

Assignment 2: Semester Project

Assessment breakdown

Assessed area	Percentage
Writing a paper on a given topic in groups of 2 students	50%

Writing and giving a presentation on a given topic	50%
The percentage will be equally divided between quality, accuracy and keeping the deadline.	

Assignment 3: Test 1

Assessment breakdown

Assessed area	Percentage
All topics covered during the first part the semester prior to Test 1	
The exam contains questions requiring short explanatory answers	50%
Some questions require students reactions on practical problems e.g. where a particular part of the hardware is placed in the PC	20%
Some questions will be multiple choice for students to choose	20%

Assignment 4: Final Exam

Assessment breakdown

Assessed area	Percentage
All topics covered during the class	
The exam contains questions requiring short explanatory answers	30%
Some questions require students reactions on practical problems e.g. how would you handle the security thread on your computer	30%
Some questions will be multiple choice for students to choose	20%
Some questions are related to practice e.g. the excel formulas, word formatting etc.	20%

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 available in the 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. It is strongly recommended that any email communication between students and instructors take place in NEO LMS.

Each email sent to an instructor that is about a new topic (meaning not a reply to an original email) shall have a new and clearly stated subject and shall have the course code in the subject, for example: “COM101-1 Mid-term Exam. Question”.

All electronic submissions are carried out 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, is expected and encouraged. However, the requirement that students miss not more than 35% of real-time classes is temporarily suspended due to the COVID-19 pandemic.

Absence excuse and make-up options

Should a student be absent from classes for relevant reasons (illness, serious family matters), s/he must submit to the Dean of Students an Absence Excuse Request Form supplemented with documents providing reasons for the absence. The form and documents must be submitted within one week of the absence. 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. Assignments missed due to unexcused absences cannot be made up which may result in a decreased or failing grade as specified in the syllabus.

Students whose absence has been excused by the Dean of Students are entitled to make up assignments and exams provided their nature allows for a make-up. 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 (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.

Eating is not allowed during classes.

Cheating and disruptive behavior

If a student engages in disruptive or other conduct unsuitable for a classroom environment of an institution of learning, the instructor may require the student to withdraw from the room for the duration of the activity or for the day and shall report the behavior to the Dean.

Students engaging in behavior which is suggestive of cheating (e.g. whispering or passing notes) will, at a minimum, be warned. In the case of continued misbehavior the student will be expelled from the exam and the exam will be marked as failed.

Plagiarism and Academic Tutoring Center

Plagiarism is “the unauthorized use or close imitation of the language and thoughts of another author and the representation of them as one’s own original work.” (Random House Unabridged Dictionary, 2nd Edition, Random House, New York, 1993)

Turnitin’s White Paper ‘The Plagiarism Spectrum’ (available at <http://go.turnitin.com/paper/plagiarism-spectrum>) identifies 10 types of plagiarism ordered from most to least severe:

1. CLONE: An act of submitting another’s work, word-for-word, as one’s own.
2. CTRL-C: A written piece that contains significant portions of text from a single source without alterations.
3. FIND-REPLACE: The act of changing key words and phrases but retaining the essential content of the source in a paper.
4. REMIX: An act of paraphrasing from other sources and making the content fit together seamlessly.
5. RECYCLE: The act of borrowing generously from one’s own previous work without citation; To self-plagiarize.
6. HYBRID: The act of combining perfectly cited sources with copied passages—without citation—in one paper.

7. MASHUP: A paper that represents a mix of copied material from several different sources without proper citation.
8. 404 ERROR: A written piece that includes citations to non-existent or inaccurate information about sources
9. AGGREGATOR: The "Aggregator" includes proper citation, but the paper contains almost no original work.
10. RE-TWEET: This paper includes proper citation, but relies too closely on the text's original wording and/or structure.

At minimum, plagiarism from types 1 through 8 will result in a failing grade for the assignment and shall be reported to the Dean. The Dean may initiate a disciplinary procedure pursuant to the Academic Codex. Allegations of bought papers and intentional or consistent plagiarism always entail disciplinary hearing and may result in expulsion from AAU.

If unsure about technical aspects of 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 are asked to contact the Dean of Students as soon as possible 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	Excellent performance. 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	Good performance. 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	Fair performance. 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	Poor. 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	Fail. The student has not succeeded in mastering the subject matter covered in the course.

* Decimals should be rounded to the nearest whole number.

Prepared by and when: Ing. Armend Qerimi, PhD cand., June 21, 2021

Approved by: Ing. Hana Prosdócimo Hajová, PhD, MBA, Chair of Mathematics and
Computer Information Science Department

Date: 2nd July, 2021

Jan Vašenda, Ph.D., Dean, School of Business Administration, 26th August 2021.