



DISCIPLINE ACADEMIC SHEET
ACADEMIC YEAR 2025 – 2026

1. PROGRAMME DATA

1.1. Higher Education Institution	UNIVERSITY OF CRAIOVA
1.2. Faculty	Automation, Computers and Electronics
1.3. Department	Computers and Information Technology
1.4. Field of Study	Computers and Information Technology
1.5. Study level	L(License / Undergraduate)
1.6. Organizational form	IF
1.7. Study Program (name/code) /Qualification	Computers / L2060101010

2. DISCIPLINE DATA

2.1 Discipline Name	Applied Informatics						
2.2 Course Activities Holder	Assoc. Prof. Ph. D. Nicolae Ileana Diana						
2.3. Practical Activities Holder	Ass. Ph.D. Vultureanu Alexandra						
2.4. Study Year	1	2.5. Semester	1	2.6. Evaluation type	V	2.7. Discipline regime	DOB

3. ESTIMATED TOTAL TIME (hours per semester of teaching activities)

3.1. Number of hours per week	3	in which: 3.2 course	2	3.3. sem./lab./pr.	0/1/0
3.4. Total hours of curriculum	42	in which: 3.5 course	28	3.6. sem./lab./pr.	0/14/0
3.7. Time distribution - hours/week					hours
Study after manual, course support, bibliography and notes					32
Additional documentation in library, on specialized electronic platforms and field					11
Training labs and homeworks					8
Examinations					4
Other activities. consultations, student meetings					3
3.7. Total hours per individual activities					58
3.8. Total hours per semester					100
3.9. Number of credits					4

4. PRECONDITIONS (where appropriate)

4.1. of curriculum	Inappropriate
4.2. of competence	Inappropriate

5. CONDITIONS (where appropriate)

5.1. of the course	Classroom with facilities for using video-projector and laptop.	
5.2. of laboratory	Laboratory with computers equipped with Linux.	

6. COURSE OBJECTIVES – expected learning outcomes that are supported by completing and passing the course

Knowledge	The student/graduate identifies and describes basic concepts, principles and methods in Mathematics, Physics, Chemistry, and Computer Science.
Skills (Abilities)	The student/graduate: (a) identifies , describes and operates with basic concepts, principles, and methods in Mathematics, Physics, Chemistry, and Computer Science; (b) describes physico-chemical and economic phenomena and processes.
Responsibility and autonomy	Student/Graduate: (a) applies the values of Ethics and Deontology of the Engineering profession; (b) practices logical reasoning, evaluation and self-evaluation in decision-making; (c) communicates effectively about engineering activities with a wide range of audiences; (d) promotes dialogue, cooperation, respect for others and interculturality.

7. CONTENT

7.1. Course	The method of implementation	Teaching methods	Allocated time (hours)
1. Engineering.Definitions, classifications. Information and data. Data life cycle.	face to face	The lectures are presented by using the blackboard and videoprojector (the Power Point presentations will be stored on the course classes made in google classroom) . Students get all necessary information in electronic form.	2
2. Measuring units.Data codification. Data exploiting lifecycle. Binary – decimal codes. Representing the signed binary numbers. Alphanumerical codes. Aspects of information protection.	face to face		2
3. Enterprise Content Management (general matters; technologies for the processing of captured information; document management systems; content management ; managing data in a ECM system.	face to face		2
4. Storage hardware characteristics. Directly attached storage with disks (protocols, examples of equipment). RAID and JBOD solutions.	face to face		2
5. Magnetic tape data storage. Optical disks. Non-volatile memory from semiconductor elements.	face to face		2
6. Storage systems (disk pools, Storage Area Networks, Network-attached Storage). Information Lifecycle. Storage pyramid.	face to face		2
7. Electronic Data Interchange.	face to face		2
8. Introduction to organization and structure of digital computer systems (Main hardware components, Memory units. Types of Read-only memory. Flash Memory. Random Access Memory. Memory hierarchy).	face to face		3
9. Computer buses, interfaces and transport protocols.	face to face		3
10. Input/Output (overview, Universal Serial Bus Ports, serial and parallel ports, VGA and Digital Video Ports, High-Definition	face to face		4

Multimedia Interface , DisplayPort, Thunderbolt , Musical Digital Instrument Interface, audio ports)			
11. Peripheral devices. Overview. Input devices (keyboards, pointing devices, sensors, video input devices, voice input devices, miscellaneous input devices). Output devices (display devices, auditory, tactile). Printing devices (printers, multi-functional equipment, plotters). Input/Output devices	face to face		4
Bibliography: Nicolae Ileana-Diana, Applied Informatics, lectures in electronic format. https://www.backupworks.com/two-new-generations-LTO-11-LTO-12.aspx https://www.sony.net/SonyInfo/News/Press/201708/17-070E/index.html https://www.ibm.com/products/ts1170 https://www.tape-storage.net/en/about_tape_storage/ https://www.ibm.com/downloads/cas/JO47D1JK https://www.quora.com/p/2317/explain-information-lifecycle-what-are-the-key-cha/ https://www.atto.com/landing/articles/Behind-SiliconDisk-Part-1-The-Storage-Pyramid https://www.ibm.com/support/knowledgecenter/HW213_7.2.0/com.ibm.storage.ssic.help.doc/f2c_autodata reloc_lfa4gd.html https://www.ibm.com/products/ts1170 http://www.cs.ucla.edu/classes/spring13/cs111/scribe/10b/ https://www.javatpoint.com/das https://files.cablewholesale.com/hires/10p2-391.jpg https://phoenixnap.com/kb/raid-levels-and-types https://www.techradar.com/features/what-is-raid-and-jbod https://www.softwareadvice.com/cms/enterprise-content-management-system-comparison/			

7.2. Laboratory	The method of implementation	Teaching methods	Allocated time (hours)
Folders	face to face	During each laboratory classes, the professor briefly discusses the theoretical support and the platform’s objectives, and then presents/runs the solved problems. The students solve the themes proposed for the current platform and present them to the professor.	2
Files			2
The file system			2
Processes			2
Advanced commands			2
Variables operators and history			2
Filters			2
Bibliography:			
1. R. Blum, C. Bresnahan , <i>Linux Command Line and Shell Scripting Bible</i> , J.Wiley and Sons, 2026.			
2. W. E. Shotts, <i>LINUX COMMAND LINE E03</i> , No Starch Press, 2026.			
3. R.Botright, <i>Unix And Linux System Administration Handbook</i> , Pastor Publishing Ltd., 2023			

8. Correlating the content of the discipline with the expectations of representatives from the epistemic community, professional associations and representative employers in the field related to the program

The course content was discussed with representatives from: ☐ NETROM Craiova ☐ CS Romania SA ☐ Pirelli Craiova
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9. EVALUATION

Activity Type	9.1. Evaluation criteria	9.2. Evaluation methods	9.3. Final mark weight
9.4. Course	- Understanding the theoretic foundations; - Capacity to make connections between the concepts taught	Midterm examination – quiz (50% of the grade for theoretic knowledge). Written exam in the last week from semester – quiz	60%

		(50% of the grade for theoretic knowledge).	
9.5. Laboratory	The ability to apply in practice the theoretical notions learned in situations similar to those encountered in practice.	Practical examination, in lab.	40%
9.6. Minimum standard of performance			
Achieving at least 50% of the score from the quiz test and from the laboratory test respectively. The calculation of the final grade is done by rounding the final score to a whole grade.			

Date of Completion	Signature of the Course Activities Holder,	Signature of the Practical Activities Holder,
23.08.2025	Assoc. Prof. Ph.D. Ileana-Diana Nicolae	

Date of Approval in the Department	Signature of the Department Director,
25.08.2025	Ș.l.dr.ing. Nicolae ENESCU

Date of Approval in the Faculty	Signature of the Dean,
	Prof.dr.ing. Dorin ȘENDRESCU