SYLLABUS

1. Data about the program of study

1.1 Institution	The Technical University of Cluj-Napoca
1.2 Faculty	Faculty of Automation and Computer Science
1.3 Department	Computer Science
1.4 Field of study	Computer Science and Information Technology
1.5 Cycle of study	Master
1.6 Program of study / Qualification	Cybersecurity Engineering / Master
1.7 Form of education	Full time

2. Data about the subject

2.1 Subject name	***Practice for the Elaboration of the Dissertation***			Subject code	**18.00**
2.2 Course responsible / lecturer	Dissertation thesis' coordinator				
2.3 Teachers in charge of seminars / Laboratory / project	Decided by dissertation thesis' coordinator				
2.4 Year of study	II	2.5 Semester	2	2.6 Type of assessment (E - exam, C - colloquium, V – verification)	V
2.7 Subject category	Formative category: DA – advanced, DS – speciality, DC – complementary				DS
	Optionality: DI – imposed, DO – optional (alternative), DF – optional (free choice)				DI

3. Estimated total time

3.1 Number of hours per week	7	of which:	Course	0	Seminars	0	Laboratory	0	Project	7
3.2 Number of hours per semester	98	of which:	Course	0	Seminars	0	Laboratory	0	Project	98
3.3 Individual study:										
(a) Manual, lecture material and notes, bibliography										50
(b) Supplementary study in the library, online and in the field										50
(c) Preparation for seminars/laboratory works, homework, reports, portfolios, essays										40
(d) Tutoring										8
(e) Exams and tests										4
(f) Other activities:										0

3.4 Total hours of individual study (suma (3.3(a)…3.3(f)))	152
3.5 Total hours per semester (3.2+3.4)	250
3.6 Number of credit points	10

4. Pre-requisites (where appropriate)

4.1 Curriculum	Research Activity 1, 2 and 3
4.2 Competence	Competences of subjects mentioned at 4.1

5. Requirements (where appropriate)

5.1. For the course	N/A
5.2. For the applications	Hardware and software specific to dissertation theme

6. Specific competence

6.1 Professional competences	perform ICT security testing perform data analysis identify ICT security risks perform risk analysis ensure information privacy monitor developments in field of expertise keep up with the latest information systems solutions execute ICT audits
6.2 Cross competences	develop an analytical approach taking a proactive approach developing strategies to solve problems being open minded coordinate engineering teams

7. Expected Learning Outcomes

Knowledge	ICT security standards security engineering cyber security cyber attack counter-measures information confidentiality information security strategy computer forensics ethical hacking principles risk management assessment of risks and threats attack vectors security threats ICT infrastructure ICT performance analysis methods
Skills	analyse ICT systems define technical requirements identify ICT security risks and weaknesses perform ICT security testing perform risk analysis collect cyber defence data perform scientific research report test findings and give live presentations solve ICT system problems address problems critically assess ICT knowledge execute ICT audits implement ICT security policies interpret technical texts
Responsibilities and autonomy	develop an analytical approach take a proactive approach develop strategies to solve problems be open-minded coordinate engineering teams

8. Discipline objective (as results from the *key competences gained*)

8.1 General objective	Elaborate the dissertation thesis
8.2 Specific objectives	Integrate results obtained during the previous phases of dissertation theme' research activity into a single system (application) in a way that is compliant with the Computer Science Department and UTCN's regulations regarding the elaboration of dissertation theses.

9. Contents

9.1 Lectures	Hours	Teaching methods	Notes
N/A	N/A	N/A	N/A
Bibliography N/A			
9.2 Applications - Seminars/Laboratory/Project	Hours	Teaching methods	Notes
Established by the dissertation thesis' coordinator, specific to the chosen dissertation theme.	98	Cooperation between dissertation supervisor and student	
Bibliography Established by each supervisor for students she/he coordinates, specific to chosen dissertation themes.			

9. Bridging course contents with the expectations of the representatives of the community, professional associations and employers in the field

It is performed by periodic talks with important cybersecurity industry representatives.

10. Evaluation

Activity type	Assessment criteria	Assessment methods	Weight in the final grade
Project	Based on the achieved results and coverage of proposed objectives.	Oral presentation *(continuous assessment)* Demos *(continuous assessment)*	50% 50%
Minimum standard of performance Minimum design, implementation and evaluation of investigated theme, such that to be graded with minimum 6 (on a scale from 1 to 10).			

Date of filling in 01.09.2025	**Responsible**	**Title First name Last name**	**Signature**
	Applications	Dissertation thesis coordinator	

Date of approval in the department 17.09.2025	Head of department, Prof.dr.eng. Rodica Potolea
Date of approval in the Faculty Council 19.09.2025	Dean, Prof.dr.eng. Vlad Mureșan