



ΑΝΟΙΚΤΟ
ΠΑΝΕΠΙΣΤΗΜΙΟ
ΚΥΠΡΟΥ
www.ouc.ac.cy



JOINT MASTER DEGREE PROGRAMME
"Security and Defence"
between the
Open University of Cyprus and the Hellenic Air
Force Academy

SPECIAL REGULATIONS FOR E-LEARNING

DEKELEIA
February 2025

CONTENTS

CONTENTS	III
1 DISTANCE EDUCATION SUPPORT UNITS.....	1
2 INFRASTRUCTURE SUPPORTING DISTANCE LEARNING	2
3 PEDAGOGICAL APPROACHES	5
4 ELECTRONIC LIBRARIES	7
5 PERSONAL DATA MANAGEMENT	8
6 MEANS OF COMMUNICATION BETWEEN STUDENTS AND OUC	9

1 Distance Education Support Units

The Joint MSc in "Security and Defence" is offered by the Hellenic Air Force Academy (HAFA) and the Open University of Cyprus (OUC) which is specialized in open and distance education. Therefore, the Joint MSc Program is supported by the Distance Education Pedagogical Design Unit which exists for all programs provided by OUC. The program is also supported by the OUC Informatics Services and more specifically the Department of E-Learning and Digital Content Management, which has the overall responsibility of supporting the educational process through the continuous development and management of e-Learning systems and the University Library of OUC. This department includes the Laboratory of Educational Material and Methodology (LEEM). The operation of LEEM focuses on the continuous improvement of the learning experience of the students of the Institution. This is achieved by monitoring current trends in distance education, implementing good practices and integrating appropriate cutting-edge technologies into the teaching and learning process. Adopting modern educational methodologies, the Laboratory supports the targeted reconfiguration of the Thematic Units of the Curricula with multimedia material, while developing specialized e-learning applications that utilize the University's curricula. This laboratory also supports distance learning for the Joint MSc Program by offering a specialized training program entitled "Introduction to Distance Teaching, Learning and Assessment" on the design and implementation of distance education to the faculty members of the two Institutions who will teach the Thematic Units (courses) of the Joint MSc Program. The laboratory has also developed webinars as well as guides and templates of educational material in order to facilitate instructors in designing the training material. In addition, the laboratory is actively involved in the configuration of the OUC infrastructure and in this case in the infrastructures that will be available to the Joint MSc Program in order to implement all the required modifications/installations of the necessary software to fulfill its educational requirements.

Specifically, the following webinars are available for instructors:

- From Student Guide to eClass - Good practices of restructuring a Module
- Distance learning activities
- Good practices of guiding and supporting students
- Creating successful video lectures - Useful tips regarding Panopto
- Synchronous online sessions vs videolectures
- Alternative assessment methods in distance learning
- Useful tips regarding interactive activities
- Group activities and assessments
- Utilizing eClass platform reports for monitoring student progress

2 INFRASTRUCTURE SUPPORTING DISTANCE LEARNING

In order to support all aspects of distance education, OUC has developed a specialized e-learning environment known as eClass e-Learning Platform. The e-Learning Platform eClass is accessible to all students and members of the academic staff of the University and will be available for both students and members of the academic staff of the Joint MSc Program in "Security and Defence".

The e-Learning platform eClass combines leading and open source applications ("Open Source Software") in a single environment. The core of the platform is the Moodle Course Management System, which supports any distance learning activity, often simulating a conventional classroom or a conventional laboratory.

In addition, the platform includes access to Blackboard Collaborate Ultra which is an online interactive meeting platform. It includes audio, video, live chat, interactive whiteboard, screen for presentations, app sharing, rooms for group meetings, voting, and the ability to record all activities.

The e-Learning platform eClass details the courses of the Curriculum based on the Academic Calendar. The Thematic Units included in the Curriculum cover the units' objectives, the curriculum and the timetable for study and also supports the submission of written assignments. The e-Learning platform supports uploading multimedia training material in many formats, such as .pdf, podcasts, presentations, recorded video conferences, videos, etc.

The tools that have been developed offer interactive interaction and possibility of synchronous and asynchronous communication and collaboration between the University, students and academic staff. Also, information, procedures and regulations of the University are posted on the public spaces of the eClass Platform.

More specifically, through the e-Learning platform, the student:

- has access to specially designed educational material,
- can obtain all relevant information for the Thematic Units he/she attends,
- submits his/her work and completes assessment exercises, receiving feedback on his/her progress,
- completes a number of other educational activities,
- attends lectures in real time, online, on specific timetable set by the instructor
- attends recordings of lectures in his/her own time and place,
- comes into contact with the professor and his/her fellow students through synchronous and asynchronous technology,
- exchanges ideas and opinions with other students attending the same Unit.

Indicatively, in the e-learning platform the instructor:

- publishes lesson plans, training materials, self-assessment exercises and other educational activities and assignments;
- gives real-time lectures, with remote participants and face-to-face, which are recorded for offline viewing by students,
- organizes counselling meetings or discussions with one or more students,
- checks students' work for possible plagiarism, with an automated process,
- introduces grades and comments per task, with relevant evaluation and detailed comments,
- posts the final grade for each Thematic Unit.

In addition to the above capabilities and services of synchronous and asynchronous e-learning, new technologies are constantly being incorporated into the educational process at a rapid pace and a remarkable degree of utilization by the academic community of OUC. The e-learning platform eClass offers (a) compatibility with mobile devices, (b) automation

when creating and uploading educational material and (c) interfaces connected to many other systems.

Students evaluate their progress and learning path through self-assessment exercises, prepared by academic staff. These interactive self-assessment exercises are graded, and contribute to the achievement of the learning objectives of the Modules. Taking into account the physiognomy and content of the Joint MSc Program, these exercises are interactive, include simulations of real business situations and scenarios to solve real problems in the technological subjects of the courses and allow students to apply the newly acquired knowledge.

Additionally, different interactive electronic platforms are available that support the thematic units, in which, depending on the complexity of the exercise, it is possible to use:

- Virtual labs provided through the OUC infrastructure
- Cloud labs
- Labs that can be downloaded and operated on students' computers.

More specifically, the following electronic platforms supported by OUC will be available to students of the Joint MSc Program:

- Access to the Cyber Threat Realm (CTR), a Cross Domain Cyber Range (CR) developed and operated internally by the Cybersecurity and Telecommunications Research Laboratory (CTRL) of OUC. It is a large-scale virtual environment that has the ability to simulate a wide range of ICT, Maritime and Industrial systems applications and everything else that the thematic units of the Joint MSc deal with.
- Access to a Security Operations Training Center (SOC) developed and operated internally by OUC CTRL. A corresponding functional version of the SOC is used by government agencies in Cyprus, so students of the Joint MSc will have access to a real security operations center in a protected educational environment.

The Cyber Range and the SOC provide a realistic cyber training environment that can support horizontal and vertical training activities, which also concern a wide range of the topics of the Joint MSc Program.

Figure 1 shows the architecture of the Cyber Threat Realm (CTR) and its connection to the OUC Security Operations Training Center (SOC).

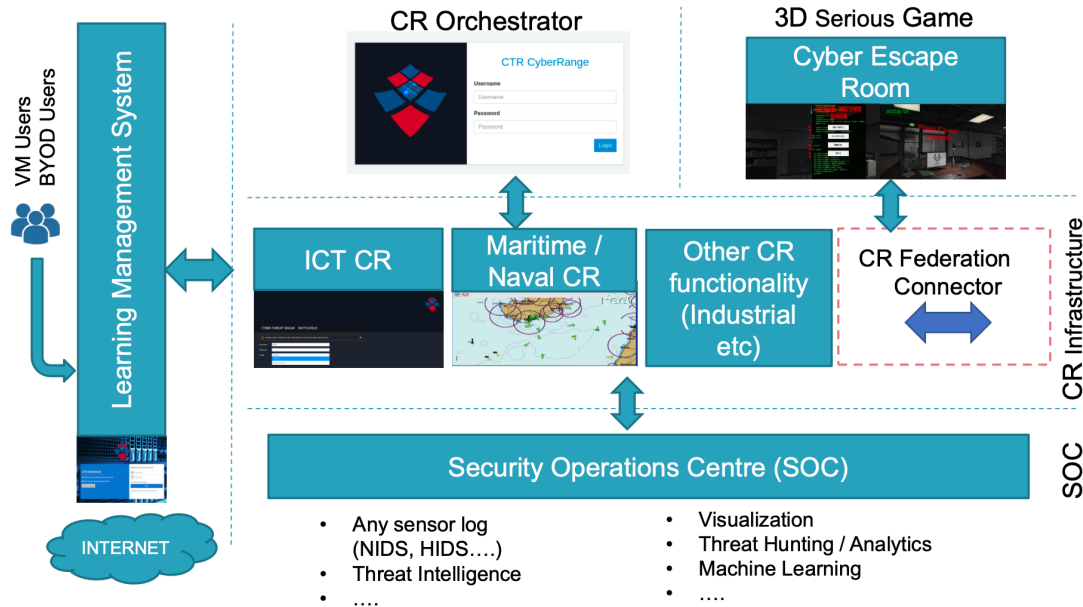


Figure 1: The virtual platform of OUC laboratories

Other electronic platforms that frame the Joint MSc are the following:

- Cyber Escape Room (OUC), a three-dimensional serious cybersecurity game that interfaces with CTR Cyber Range and can support any relevant scenario.
- The Drone Simulator (OUC-HAFA) which has been developed in a research collaboration between HAFA and OUC and aims to train in Search and Rescue scenarios in Asymmetric Threat Situations. This prototype has the potential to be extended and support other training scenarios.
- TruNET Wireless is a platform for developing wireless communication system coverage in urban, peri-urban and rural areas. This virtual environment also simulates scenarios of jamming signals in security and defence operations.

Additional open source platforms are available either through the CTR Cyber Range or autonomously on students' local computers to enable practical training of students with the technologies that will be covered in the thematic units of the program.

3 PEDAGOGICAL APPROACHES

The Open University of Cyprus (OUC), unlike a conventional university, offers a flexible way of education, which eliminates time and geographical constraints and enables individuals, through methodological educational functions, to be trained and study in quality undergraduate and postgraduate programs. It uses a modern educational methodology in the context of lifelong learning, where teaching research staff, but also collaborating teaching staff, as transmitters of knowledge, exercise their educational duties remotely, helping and evaluating learners.

The Open University of Cyprus implements the modular system on which open distance education is based. The Joint MSc Program of OUC and the Hellenic Air Force Academy follows the specific and tested system already applied by OUC in all its programs. Thus, the Joint MSc Program is structured on the basis of Thematic Units (Modules) with the application of the European Credit Transfer System (ECTS). The Thematic Unit is the basic functional unit of the program, which fully covers a specific subject and lasts six months.

The students of the Joint MSc Program have access to the e-learning platform where practical and procedural information about the Open University of Cyprus and the Hellenic Air Force Academy and the Joint MSc Program is posted. It states the objectives of the Program, the Thematic Units included, the objectives of each module, the syllabus to be taught and examined, as well as the timetable for study and submission of written assignments. The e-learning platform supports live interaction and the possibility of collaboration between the University, students and instructors.

The educational methodology of the Joint MSc Program is based on synchronous and asynchronous communication and interaction between students and academic staff. Video conferences and telephone lectures are a direct way of contact and collaboration between advisors-professors and students, while the fact that they are recorded, allows students to attend them at their own time and place. In addition, teachers have weekly office hours, during which they provide personalized support to their students.

Based on the above mentioned methodology, the interaction of students with each other, students with academic staff, as well as students with educational material is ensured.

Regarding the evaluation procedures, students offer feedback on the program, the Modules, the instructors' work and their lecturers at OUC and HAFA, through an anonymous online evaluation questionnaire at the end of each academic semester, the results of which are communicated to the Director of the Joint MSc Program and are taken into account for improvements, where appropriate. The individual evaluation of each instructor is sent to him/her to improve his/her teaching. The student feedback questionnaire is known in advance to the members of the academic staff of the Joint MSc. At the same time, in the academic staff groups of the programs of study, the Academic Staff has the opportunity to provide feedback both to the Academic Coordinators of the Thematic Units (where they exist) and to the Director of the Program.

The communication and interaction of students and academic staff is continuous and seamless and is ensured through the synchronous and asynchronous communication tools of the E-Learning Platform, but also through face-to-face contact of students and academic staff, when requested. The simultaneous and final evaluation of the students of the Joint MSc Program is done through self-assessment exercises, written assignments (two per Thematic Unit), interactive educational activities and the final written examination which is conducted exclusively by electronic means. Students receive appropriate guidance for delivering written assignments, for the appropriate academic use of bibliography, for bibliographic references and the development of critical ability and thinking, while they know in advance the evaluation criteria of their written assignments. The mechanisms for monitoring student performance ensure the integrity of examinations, through the Exams

Proctoring Service (Proctorio) which allows the monitoring of examinations, which are conducted from the student's personal space using a computer and internet.

More specifically, the exam proctoring service operates in conjunction with the eClass E-Learning Platform and has the ability to:

- check the student's screen during the exams by recording unauthorized use of resources from the computer or the internet,
- record the computer's camera so that the student cannot leave the room, the presence of another person in the room or the use of a smart phone,
- record the microphone during the examination so that the examinee cannot have a conversation with a third person,
- verify the identity of the examinee whenever required by the system,
- check the examination room before the start of the examination.

In addition, the plagiarism checking tools integrated in the eClass E-Learning Platform check all submitted assignments for possible plagiarism, ensure the originality of students' written assignments as all papers submitted by students to the OUC e-Learning Platform are examined with "Turnitin", an advanced plagiarism detection software. "Turnitin" is an online text matching service that checks online submissions using material from a large database (including journal articles, web pages and old student submissions) and generates an originality report for each assignment submitted for grading on the eClass e-Learning Platform. Material coming from an artificial intelligence system is also detected.

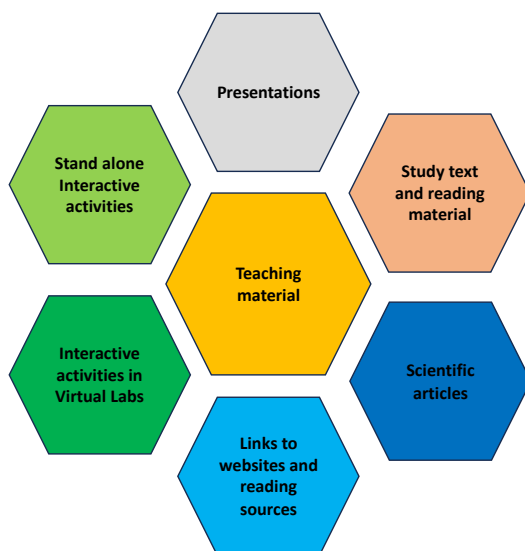


Figure 2: The form of the pedagogical material used by the Joint MSc Program

The polymorphic educational material (Figure 2), which includes, for the specific curriculum, books, articles, scientific papers, presentations, lectures, etc., is updated on a regular basis and meets the specifications provided by the distance learning methodology.

For all thematic units of the New Joint MSc Program titled "Security & Defence", study guides have been developed, fully harmonized with the philosophy and methodology of distance education. Interactive activities have also been developed along with their evaluation and feedback policy. These study guides include clearly defined objectives and expected learning outcomes of the module, present the educational material of each course (multimedia, printed, digital, teleconferences, etc.) and student activities (and ways of evaluating them: interactive activities, written assignments, final exam) and provide information on the assessment and indicative curriculum.

4 ELECTRONIC LIBRARIES

The OUC Library is an electronic - in terms of its operation - but also a hybrid - in terms of its content - library. Its collections, which are fully automated and organized, are based on international library standards and include printed and particularly rich electronic/digital material. Due to the special educational characteristics of the University, the Library has set as its main service the provision of support to its users through e-learning and online communication tools. Therefore, it has created the appropriate infrastructure so that its users have access to electronic resources and other relevant aids 24 hours a day.

The conventional collection of the OUC Library currently exceeds 23,000 copies, while the collection of electronic journals includes approximately 200,000 titles. The electronic subscriptions of the Library correspond to:

- 176 databases (of which over 168 full-text).
- Over 693,000 e-book titles.
- Over 27,000 subscriptions to e-Journals.
- Over 15,000 Conference Proceedings, and
- 3,000,000 Dissertations from US and UK Universities.

The databases come mainly from the Cyprus Libraries Consortium (CLC), of which OUC is a founding member, while at the same time the University Library maintains independent subscriptions:

Subsystem of 100 mental collections including:

- about 700 e-books,
- doctoral dissertations on internet sites,
- About 100 free access electronic journals, etc.

The OUC Library supports groups of users with special needs (e.g. visually impaired students), by appropriately configuring all textbooks of compulsory bibliography of the University's curricula, so that they are compatible with e-reading tools. As a founding member of the Cyprus Academic Libraries Consortium (CLC), the Library actively contributes to negotiations with publishing organizations to meet all the needs of Academic Libraries, while aiming at economies of scale.

Hafa operates a library as a center for collecting, storing, classifying, distributing and offering the accumulated knowledge to support and promote every research and educational process. The accumulated knowledge is recorded in books, scientific journals, maps, newspapers, manuscripts, microfilms and in all forms of electronic and audiovisual material.

Hafa's collection includes 5,450 books and 38 journals in the field of aviation sciences. The building can simultaneously accommodate more than 120 people in an area of 3,180 square meters. The library archive catalogue is available electronically so that essays can be easily searched.

All Hafa's personnel, military and civilian, teaching and research staff and special and laboratory teaching staff as well as students of all programs can use and borrow library material. It is also possible for external scholars to also use the library.

5 PERSONAL DATA MANAGEMENT

OUC and HAFA give maximum publicity and transparency to all issues concerning students without violating their personal data and privacy. The Internal Regulations of Studies and the decisions of the Academic and Administrative Bodies of the Open University of Cyprus are published on the official website of the University. OUC and HAFA platforms are compliant with the General Data Protection Regulation (GDPR). More specifically, the Personal Data Processing Policy of the Open University of Cyprus as the coordinating institution of the Joint MSc Program is published on the University's website and accessible to both students and the public through the link:

https://www.ouc.ac.cy/images/v7_Πολιτική_Επεξεργασίας_Δεδομένων_ΑΠΚΥ_17.7.23_-_final.pdf

6 MEANS OF COMMUNICATION BETWEEN STUDENTS AND OUC

The communication of OUC with its students is mainly done through digital (electronic) means, with the use of which sufficient familiarization is required. More information on the use of electronic tools is presented in special manuals and relevant instructions issued by OUC. Before the beginning of the academic year, each student is informed about the new e-mail address created by OUC, through which communication will take place during their studies at OUC. Electronic communication is just as valid and essentially binding for the University and its students as written communication. For this reason:

- Each candidate student declares, during his/her first contact with OUC, his/her personal e-mail address. To this address the OUC sends the initial correspondence, which is considered valid and official.
- For each student enrolled in the Joint MSc Program, the University creates an electronic mail (e-mail) address.
- Upon commencement of studies, communication is carried out only through the e-mail address provided by OUC and it is the student's responsibility to handle this e-mail personally and confidentially.
- Correspondence is sent to this address which is considered valid and official, while e-mails are considered signed by their sender.
- Each OUC student has a registration / student ID number, through which personal information related to his/her attendance at OUC is internally managed and processed.
- It is the student's responsibility to check the email provided by OUC and the eClass e-Learning Platform on a daily basis.
- When studies are terminated for any reason, access to OUC electronic tools is terminated.

