



A18. Regulation for the Organization and Implementation of Distance (Remote) Learning Methods

Department of Digital Industry Technologies

MSc "Robotics and Industrial Control"



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SPECIAL REGULATION FOR THE ORGANIZATION AND IMPLEMENTATION OF DISTANCE (REMOTE) LEARNING METHODS

IN THE MASTER'S PROGRAM "Robotics and Industrial Control" OF THE DEPARTMENT OF DIGITAL INDUSTRY TECHNOLOGIES, SCHOOL OF NATURAL SCIENCES, NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS

(Law No. 4957/2022, Ministerial Decision 18137/Z1/ Government Gazette B1079/B/28.02.2023)

ARTICLE 1 POSSIBILITY AND SUITABILITY OF SUPPORT FOR THE ACADEMIC SUBJECT OF THE MASTER'S PROGRAM WITH REMOTE LEARNING METHODS

The academic discipline of the Master's Program entitled "Robotics and Industrial Control" of the Department of Digital Industry Technologies of the National and Kapodistrian University of Athens (NKUA), is suitable to be organized through the use of synchronous (and, in special cases, asynchronous) remote learning methods, in alignment with extant legislative mandates. This possibility is intrinsic to the program's structure, which effectively accommodates and facilitates the diverse dimensions, integral to the pedagogical efficacy of these instructional approaches.

The reasons for the use of distance education are:

- The subjects of the curriculum, which fall within the field of digital technologies, allow the organization
 of a part of the educational work using distance methods, without affecting the offered academic
 standard.
- The facilitation of students from other regions of Greece, Cyprus and abroad.
- Social reasons, such as increased obligations of students, a consequence of the economic crisis the
 country is going through (e.g., increased working hours within the context of professional
 responsibilities), increase the likelihood of student failing to attend certain face-to-face teaching hours
 of the curriculum. The adoption of distance learning methods creates favorable conditions for
 addressing this challenge.
- Facilitation of the potential involvement of instructors from abroad in the Postgraduate Program.
- Familiarization of participants in the M.Sc. program with distance learning methods.
- The NKUA, equipped with an integrated e-learning system, possesses suitable digital platforms and, more broadly, has sufficient digital infrastructure for the effective organization, implementation, and support of the distance learning methods employed in the curriculum of the Postgraduate Program.

ARTICLE 2 METHODS OF ORGANIZATION OF THE EDUCATIONAL PROCESS

The educational process of the Postgraduate Program in "Robotics and Industrial Control" unfolds through various teaching modalities, including lectures, workshops, etc., employing a blended education system that incorporates individual utilization of distance learning methods. It is noted that the use of distance learning methods will not pertain to the laboratory education of the students, which will be conducted in-person.

The determination of the instructional approach for each facet of the educational process (e.g., course, seminar) is at the discretion of the instructor, overseen by the Coordinating Committee of the Postgraduate Program. This decision is contingent upon considerations such as the inherent nature, requisites, and overall pedagogical conditions of each module, aligning with the stipulations outlined in the relevant article of the Postgraduate Studies Regulation. In cases where asynchronous distance learning methods are deemed suitable for a segment of the educational process, it is mandated that this does not surpass 25% of the total credits allocated to the Postgraduate Program.

ARTICLE 3: MATERIAL AND TECHNICAL INFRASTRUCTURE OF N.K.U.A. TO SUPPORT DISTANCE EDUCATION IN THE POSTGRADUATE PROGRAM

The comprehensive e-learning system of the NKUA possesses all the requisite modern digital and technical infrastructure and services for organizing M.Sc. programs through distance education methods. These resources are made available to ensure the seamless operation and continuous support of the M.Sc. program. Specifically:

- a) Regarding synchronous distance education, the NKUA utilizes established and tested electronic platforms that facilitate interactive two-way communication and real-time participation. These platforms include Cisco Webex, Google Meet, MS Teams, Zoom, and e-Class, all of which are fully operational and detailed below. Students access these platforms using their institutional accounts. The platforms support audiovisual communication among users, as well as file-sharing capabilities through straightforward and user-friendly procedures, eliminating the need for complex settings and customizations. Widely recognized in the international academic community for their robust digital features, these platforms effectively support a large number of participants simultaneously and offer additional functionalities, such as the segregation and collaboration of students in synchronous teams. Notably, these platforms demonstrated significant efficacy in ensuring the uninterrupted operation of the Postgraduate Program during the two years of the COVID-19 pandemic. Within the educational framework of the Postgraduate Program, these platforms will be employed for conducting remote lectures, seminars, and other collaborative activities between instructors and students.
- (b) Electronic Classroom (eclass.uoa.gr): The platform serves as an integrated e-Course Management System, operating in adherence to the principles of open-source software. It facilitates both synchronous (via a "telecollaboration" tool) and asynchronous e-learning services, without imposing restrictions or commitments. Access to the Electronic Classroom is straightforward, requiring only a standard web browser without the need for specialized technical expertise. Instructors can effortlessly create user-friendly and effective e-courses, incorporating diverse educational materials such as academic notes, presentations, videos, texts, and images. Upon establishing a digital account in the online classroom, students gain entry to the respective courses, content descriptions, digital materials, recommended bibliography, examination syllabi (both intermediate and final), as well as other pertinent services. The e-Classroom presents multiple features for disseminating information on teaching, facilitating interaction and communication among instructors and students, as well as peer-to-peer interaction among students. It supports the submission of assignments, questions, and other inquiries through a variety of tools including announcements, documents/supporting materials, assignments, exercises, user groups, discussions, interactive content, multimedia, concept maps, learning lines, chat functionalities, messages, calendar features, and more.
- c) Electronic Mail: The Electronic Mail Service provides an email address specific to the NKUA for the Postgraduate Program. It also provides the infrastructure for sending messages to other internet users, storing messages on the university's server using the IMAP protocol, accessing mail via webmail (webmail.noc.uoa.gr), and implementing counter-spam measures, among other functionalities.

Moreover, the MSc in "Robotics and Industrial Control" will be equipped with its dedicated email, where all queries and concerns submitted will receive prompt and comprehensive responses.

- d) The Digital Office Collaborative Platform: This platform, powered by Office365 for Education and provided by NKUA, serves as a digital office equipped with collaborative digital tools for word processing, presentations, spreadsheets, and note-taking. It also offers personal and shared cloud storage space to facilitate the needs of both teaching staff and students. Instructors have the ability to create interactive digital support material, presentations, lectures, assignments, and utilize cloud storage for sharing supplementary material, thereby fostering collaboration. Students, accessing the platform with their institutional accounts, can utilize these tools individually or collaboratively in groups for tasks such as writing papers, academic documents, diploma theses, and creating presentations.
- e) Posting Personal Websites: The service offers users the capability to create and publish personal web pages, in the form of static HTML pages. Additionally, the Postgraduate Program will design its dedicated website, encompassing various categories of information, including scientific, operational, legislative, and informational content. It will also address frequently asked questions to provide comprehensive guidance and support.

- f) Virtual Private Network (VPN): The Virtual Private Network (VPN) Service provides to all members of the University community the capability to establish a secure connection to the local networks and infrastructures of NKUA from any location outside the University, including international locations.
- g) Open eClass Platform (https://docs.openeclass.org/el/3.13/detail_description): This integrated e-Course Management System is endorsed by the Academic Internet (GUnet) to support Asynchronous Distance Learning Services. Founded on the principles of open-source software, actively maintained by GUnet, and freely distributed, it facilitates ongoing interaction and communication between instructors and learners. The platform enables the electronic organization, storage, and presentation of educational materials, transcending the constraints of classical teaching in terms of space and time, thereby fostering a dynamic educational environment. Open eClass provides a user-friendly interface for creating functional e-courses and incorporating diverse educational materials, including presentations, videos, texts, and images. It supports Asynchronous Distance Learning services without imposing restrictions or commitments, allowing access through a standard web browser without the need for specialized technical expertise. Notably, the platform adheres to the WCAG 2.0 accessibility specifications at level AA, and its accessibility features have undergone thorough testing by NKUA's accessibility unit (https://www.w3.org/WAI/standards-guidelines/wcag/).
- (h) Additional Logistics Infrastructures: These infrastructures include electronic libraries accessible through the Hellenic Academic Libraries Link. Students, using their institutional accounts, have open access to an extensive array of scientific journals, textbooks, and supplementary study materials. Furthermore, these infrastructures provide the opportunity to students, graduates, and academic staff, to publish papers in scientific journals.

ARTICLE 4: DIGITAL EDUCATIONAL MATERIAL

The e-learning system of NKUA facilitates the uploading of digital educational material derived from diverse scientific fields within the Postgraduate Program. This material is characterized by its interdisciplinary nature, contemporary relevance, and regular updates to enhance the effectiveness of students' studies in the Postgraduate Program. Furthermore, it serves to bolster the mixed education system implemented in the curriculum of the Postgraduate Program.

Digital supporting educational materials for courses, including lectures, workshops, etc., may be in various forms, such as texts, presentations, academic notes, educational scenarios, case studies, problems for solution, practical exercises, current scientific articles, relevant videos, films, electronic links, and more. All types of educational materials are exclusively provided for educational purposes to students and are safeguarded by copyright, as stipulated by Law 2121/1993 (A' 25), provided that the relevant conditions are met.

ARTICLE 5 DIGITAL EVALUATION

- 5.1. The assessment of postgraduate students and their performance in the requisite courses within the framework of the Postgraduate Program occurs at the conclusion of each semester. This assessment may involve written or oral examinations, assignments distributed throughout the semester, or a combination of intermediate progress exams, written assignments, and laboratory exercises. The evaluation process can utilize either face-to-face assessment methods or digital assessment methods. Specifically, for the case of written remote examinations, a preceding decision by the Coordinating Committee of the Postgraduate Program is necessary. Such a decision should provide justification for the need to employ this assessment method.
- 5.2. Methods of digital assessment of students: To participate in the digital assessment, students should have the following: Computer, mobile phone or tablet, recent operating system Windows or MacOs or iOS or Android, internet connection, browser, or special software application (where required) to access the video conferencing platform, camera, speakers and microphone, for communication with the instructor, and institutional account.

The methods of digital assessment for students in the MSc program may encompass:

a) Remote Oral Examination via Videoconferencing Tools: The evaluation method entails conducting oral

examinations remotely through videoconferencing tools. Student authentication is achieved through visual identification utilizing a camera, wherein students are required to exhibit their identity. This process mandates the utilization of designated platforms such as CiscoWebex, Google Meet, and MSTeams, or any alternative platform established in collaboration with NKUA. Students are expected to access these platforms using their institutional accounts for the purpose of examination.

- b) Written Remote Examination (refer to section 5.1 above) utilizing the e-Class platform (Assignments tool) for topic distribution. Diverse topics may be allocated to student groups (distributed manually), and specific deadlines may be established for completion. Responses can be handwritten on paper, captured via mobile phone photography, and subsequently submitted through the online classroom. Access to the online classroom is granted to students through their institutional accounts.
- c) Electronic Submission by Students of Projects, Individual and/or Group Collaborative Work: Students may electronically submit various assignments such as research projects, individual or collaborative projects, weekly assignments, studies, calendars, evaluation sheets, and problem-solving reports. Written assignments can be submitted through the e-Class platform.

Regardless of the digital assessment method employed, conditions of transparency, objectivity, efficiency, and impeccable procedures are ensured.

Throughout the entire examination process, NKUA does not, under any circumstances, process students' personal data in an automated manner, nor does it create profiles. For each examination and throughout its duration, where the cameras and microphones of students remain open to ensure the reliability of the examination, NKUA will not record or collect, for any reason, personal image and audio data.

- 5.3. Digital Evaluation Material: The digital evaluation material for the Postgraduate Program involves the completion and submission of structured electronic questionnaires by postgraduate students. These questionnaires are designed to be anonymous and aim to assess various aspects, including the comprehensiveness, quality, and effectiveness of the courses within the program. Additionally, students provide feedback on the material and technical infrastructure, identifying strengths and weaknesses. The questionnaires also solicit improvement proposals from students regarding the overall program of study and the educational services offered at the postgraduate level.
- 5.4 The support of the Master's thesis can be provided through the use of teleconferencing tools, analogous to the process of remote oral examination.

ARTICLE 6 DIGITAL SKILLS OF TEACHING STAFF

The faculty members engaged in the implementation of the MSc program comprise esteemed scholars, coming primarily from the Department of Digital Industry Technologies of NKUA. Possessing extensive scientific and professional expertise in leveraging digital infrastructures, electronic platforms, and contemporary interactive tools across diverse scientific domains, the teaching staff demonstrates proficiency in various competencies. These competencies include delivering telelectures, whether accompanied by supporting presentation materials or not, orchestrating synchronous and/or asynchronous digital working groups, curating digital literature, engaging in digitally synchronous and/or asynchronous chats and forums, maintaining personal blogs or websites (e.g., LinkedIn), and participating in digital academic and professional networks.

The teaching staff utilizes these digital skills in conjunction with the digital infrastructure of NKUA to foster the digital proficiency of students in the academic domains of the MSc program and enhance their professional networking capabilities.

The expertise of the teaching staff, spanning to diverse subjects covered in the program, coupled with their noteworthy experiences, collaborations, and collective research endeavors, significantly contribute to the elevated quality of digital services offered by the Postgraduate Program's curriculum. This is achieved through the incorporation of modern international best practices in delivering academic educational services.

ARTICLE 7 PROTECTION OF PERSONAL DATA

The implementation of the General Data Protection Regulation (GDPR) (EU) 2016/679 serves to fortify the framework governing the safeguarding of individuals' personal data in the context of data processing, aligning with the directives of the European Union. NKUA, in adherence to the GDPR, exemplifies a commitment to upholding the privacy of personal data within the parameters and objectives of its institutional activities. NKUA adopts the prescribed technical and organizational measures, as outlined in the GDPR and broader Greek legislation, to ensure the effective protection of personal data. The collection and processing of personal data by NKUA is strictly confined to information deemed essential for each specific and well-defined purpose, in accordance with the pertinent legal foundation. Within this framework, data processing encompasses personal information provided to NKUA in real-time interactive contexts, including the utilization of official online platforms and services, or through alternative modes of interaction such as form submissions and registrations.

Personal data is collected in accordance with GDPR and the applicable legislation, either upon the commencement of the relationship with NKUA or subsequently. Such data is subject to processing, with the legal basis being individual consent when required, for purposes such as identification, communication, development, and improvement of provided services, as well as for the protection and security of information systems, among other functions. Access to personal data is granted to NKUA personnel in the execution of their duties assigned by the University, such as data processing responsibilities, under the condition of strict adherence to confidentiality, trust, and secrecy obligations. In such instances, personal data is retained for a duration specified by the prevailing legal and regulatory framework. Upon communication with NKUA, there is an opportunity to rectify any inaccurate or incomplete personal data.

Upon the decision of the Coordinating Committee of the Postgraduate Program (the competent collective body), members of the Teaching and Research Staff, Special Educational Staff, special Laboratory Teaching Staff and Special Technical Laboratory Staff specializing in the relevant subjects will be appointed as Managers of Digital Systems Management and the Integrated Distance Learning System for the Postgraduate Program.