NATIONAL TECHNICAL UNIVERSITY OF ATHENS

SCHOOL OF ELECTRICAL AND COMPUTER ENGINEERING

SCHOOL OF MECHANICAL ENGINEERING

INTERDISCIPLINARY POSTGRADUATE PROGRAMME

“TRANSLATIONAL ENGINEERING IN HEALTH AND MEDICINE”

Study Guide

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1. General Information

The School of Electrical and Computer Engineering (SECE) at the National Technical University of Athens (NTUA), in collaboration with the School of Mechanical Engineering (SME) at NTUA, has been organizing and operating since the academic year 2022-2023 the Interdisciplinary Postgraduate Programme (MSc Program) in the scientific field of "Translational Engineering in Health and Medicine", in accordance with the provisions of the establishment decision (Government Gazette issue 1338, volume B, March 23, 2022) and the provisions of Law 4485/2017 (Government Gazette A' 114) and Law 4957/2022 (Government Gazette A' 141). The administrative support for the program is provided by the School of Electrical and Computer Engineering of NTUA.

1.1. Discipline

Recent years have witnessed remarkable transformations in the healthcare sector, owing to the integration of life sciences with physical sciences and engineering disciplines. The rapid advancement of information and knowledge technologies, alongside breakthroughs in nanotechnology and materials science, combined with the progression of computational methods, has revolutionized both biomedical research and clinical practice. These advancements enable the quantitative recording and assessment of numerous physiological and pathophysiological phenomena. Moreover, groundbreaking therapies have emerged, effectively treating a multitude of diseases. The translation of scientific innovations into practical services has facilitated the quantification and personalization of clinical practices, empowering patients to actively engage in data recording and health decision-making processes. As a result, the burgeoning interdisciplinary field of "Translational Engineering in Health and Medicine" necessitates professionals proficient in both Biomedical Science and Engineering. These individuals serve as pioneers, converting innovative technologies into commercial provisions and services, thereby leaving a significant socio-economic footprint within the healthcare sector.

The MSc Program "Translational Engineering in Health and Medicine" initially aims to address the need for interdisciplinary Postgraduate Programmes. These needs are also evident from the increased participation of Greek graduates in such programs at foreign universities, with clear economic consequences. The program seeks to contribute to reversing this outflow of scientific and research expertise abroad. Additionally, the MSc Program aims to attract graduates from foreign universities for postgraduate studies at NTUA in the field of Translational Biomedical Engineering and Science.

The objective of the MSc Program is to enhance scientific and technological research and to generate new interdisciplinary knowledge in the field of Translational Engineering in Health and Medicine.

1.2. Aims

The postgraduate studies offered by the program aim to:

a) Deepen the understanding of integrated interdisciplinary approaches, research methodologies, and problem-solving techniques among engineers, natural scientists, and health science graduates. This aims to equip graduates with specialized expertise to meet the growing demands of both private and public sectors, nationally and internationally, in addressing complex challenges within the field of "Translational Engineering in Health and Medicine".

b) Provide comprehensive training for engineers, natural scientists, and health professionals, enhancing their research capabilities to contribute to the advancement of knowledge. The program emphasizes interdisciplinary and intercultural collaboration among faculty, students, and learning resources.

Furthermore, collaboration with other universities and reputable industry partners is integral to the program's operation.

3. The Postgraduate Programme in **"Translational Engineering in Health and Medicine"** aims to train specialized professionals capable of:

- Recognizing, formulating, and solving complex health-related issues using mathematical, scientific, and engineering knowledge in biological or medical contexts.
- Analyzing, designing, and developing devices, systems, products, and protocols to improve disease diagnosis, treatment, and rehabilitation, employing modern tools and techniques.
- Integrating knowledge from biomedical sciences and engineering to design and implement innovative solutions to biomedical challenges, considering global societal, environmental, technological, and economic factors.
- Effectively communicating complex interdisciplinary concepts in biomedical engineering and science to both technical and non-technical audiences through written reports and oral presentations.
- Identifying market opportunities for innovative healthcare technologies and products.
- Assuming leadership roles in innovation and entrepreneurship aimed at the potential utilization of biomedical research outcomes to promote health.
- Occupying and assuming leadership roles in various sectors of the healthcare industry with increasing technological demands.
- Creating a collaborative and inclusive work environment by setting and achieving goals through organized task assignments.
- Working effectively as team members in different fields (research, scientific, entrepreneurial, etc.) within the healthcare sector.
- Generating new knowledge as a result of their in-depth training.
- Continuing into further research as doctoral candidates with an enhanced knowledge background.

1.3. Applicant Categories

The MSc Program admits individuals who hold engineering diplomas, as well as graduates from departments of natural or health sciences (such as Electrical and Computer Engineering, Mechanical Engineering, Chemical Engineering, Computer Science, Physics, Chemistry, Medicine, Biology, Molecular Biology, Biochemistry, Pharmacy, Dentistry, Biotechnology, Bioinformatics, Nursing, among others), provided they meet all the criteria for successful completion of the courses. The program welcomes graduates from domestic universities or recognized equivalent institutions abroad, as defined by the Hellenic National Academic Recognition and Information Center (DOATAP), in accordance with Law 4957/2022.

1.4. Required Documents

The necessary documentation to be submitted by candidates interested in the MSc Program "Translational Engineering in Health and Medicine" includes:

1. Undergraduate and postgraduate degree certificates. Candidates from foreign universities must submit their degree certificate, which will be verified according to the criteria of Law 4957/2022

in the Hellenic National Academic Recognition and Information Center - DOATAP (doatap.gr). Candidates who have not graduated at the time of application submission must provide a solemn declaration of completion of their studies by the beginning of the academic reference year. This declaration must be accompanied by a certificate from their institution stating any outstanding obligations required for the completion of their studies.

2. Copies of transcripts of records from undergraduate and postgraduate studies, including the degree/diploma grades.
3. Certificate of English language proficiency (at least B2 level), as demonstrated by holding a degree from a university in an English-speaking country or a certificate of proficiency in English (Toefl, IELTS, University of Michigan, University of Cambridge, etc.). Candidates selected for an interview are expected to demonstrate good command of the English language.
4. Two letters of recommendation. The letters of recommendation should be submitted electronically through the online application platform (as detailed in section 1.6 Application Procedure). During the application process, candidates must provide the contact details of two individuals who will submit recommendations on their behalf. For most candidates, recommendations may come from two faculty members from their previous university who have taught them at the undergraduate level and can comment on subjects or skills relevant to the MSc program. If candidates have been out of higher education for more than four years, one recommendation letter may come from their professional field.
5. A complete curriculum vitae in English (maximum 2 pages), including information about the candidate's education, research, professional interests, and activities.
6. A one-page statement of interest in English, explaining the candidate's motivations for applying to the MSc program in relation to their interests.
7. Evidence of research experience (if applicable). Candidates may submit copies of publications of works in scientific journals or conferences or/and brief articles resulting from their undergraduate research work, in English.
8. Simple photocopy of the identity card or passport.

1.5. Selection Criteria

Applications are evaluated based on the overall experience, skills, personality, and potential of each candidate, aiming to create a class of students with diverse backgrounds and experiences who can both benefit from and contribute to the demanding interdisciplinary curriculum of the MSc program. The selection committee considers the academic potential, career goals that align with the MSc program, and leadership capabilities of the candidates.

Specific selection criteria include:

- The overall grade of the undergraduate degree.
- The ranking of the degree in relation to the grades of other graduates in the same School/Department and academic year.
- The grades in undergraduate courses relevant to the MSc program.
- Performance and subject of the undergraduate thesis, where applicable.
- Any additional postgraduate degrees related to the discipline of the MSc program.

- The candidate's research, professional, or technological activity.
- Proof of sufficient knowledge of the English language.
- Letters of recommendation.
- For employed candidates, the needs and prospects of their current employer.

The program does not discriminate based on race, color, religion, national origin, gender, sexual orientation, age, or disability. This non-discrimination policy applies to all stages of the candidate selection process as well as to all aspects of the educational process.

1.6. Application Procedure

Postgraduate candidates must register as users at gradapply.ece.ntua.gr/register and subsequently submit their application electronically at gradapply.ece.ntua.gr along with the required documents.

All documentation must be submitted within the specified deadline to be considered. Successful candidates will be required to present certified copies of all necessary documents submitted electronically, as well as a copy of their electronic application, on the day of registration.

If deemed necessary by the selection committee, candidates may be invited for an interview.

Candidates will be informed electronically about the results of the evaluation of their application.

1.7. Number of Admitted Students

The total number of postgraduate students admitted each year to the MSc program “Translational Engineering in Health and Medicine” is set at forty (40).

1.8. Studies

To obtain the Diploma of Postgraduate Studies – Master of Science, students required to attend and pass courses totaling at least 60 ECTS credits, and to elaborate and successfully present the Postgraduate Diploma Thesis (PDT), which is equivalent to an additional 30 ECTS credits. The Curriculum is full-time and includes two semesters of coursework and one semester dedicated to the PDT. The minimum duration of studies of the MSc Program is 2 academic semesters, while the maximum duration of enrollment is 2 years, including the completion of the Postgraduate Diploma Thesis (PDT).

1.9. Infrastructure

The necessary infrastructure, such as classrooms, laboratories, and personal computers, is provided by the collaborating Schools. The Programme Studies Committee (PSC) proposes to the competent bodies of the NTUA the necessary measures to enhance this infrastructure and to secure the necessary resources for the acquisition or renewal of the existing infrastructure of the MSc Program.

1.10. Participation Cost

Students from non-EU countries are required to pay tuition fees to cover for operational cost, which are set at €500 per semester. The tuition fees are paid at the beginning of each semester in a single installment.

1.11. Useful Links

MSc Program Website: https://masterteam.ntua.gr/

Regulations of the MSc Program: Government Gazette 1231/B'/17.03.2022

Contact - Administrative Services: Information, news, announcements, and forms for the MSc Program are posted on the program's website: https://masterteam.ntua.gr/news

2. Organization and Administration

2.1. Organizational Framework

The MSc program "Translational Engineering in Health and Medicine" is organized and implemented through the collaboration of the Schools of Electrical and Computer Engineering and the Scholl of Mechanical Engineering of the National Technical University of Athens (NTUA). The School of Electrical and Computer Engineering is the coordinating school.

National Technical University of Athens (NTUA)

The National Technical University of Athens (NTUA) was established in its initial form as the “School of Arts” in 1836, almost concurrently with the establishment of the modern Greek state. It evolved (1887, 1917) following the standards of the “Continental” European education system for engineers, with a strong theoretical background and a five-year regular duration of studies. Through the inseparable unity of education and research, its primary institutional mission is to provide higher education of distinguished quality and promote science and technology. The diploma awarded by NTUA is equivalent to a “Master of Science” (MSc) or “Master of Engineering” (M.Eng.) in the Anglo-Saxon study system.

In accordance with the prevailing strategic choice of the University to preserve and strengthen its position as a distinguished academic Institution of sciences and technology, NTUA, with the emblem of Prometheus the Firebearer, regards humanity as the measure, with key parameters being the quality of life and the protection of democratic rights and achievements. It fulfills its mission by fostering the development of the broader personal and social virtues of both educators-researchers and students. Within this framework, it cultivates skills for autonomous access to knowledge, synthesis, research, communication, collaboration, and personnel and project management, highlighting integrated personalities, which not only possess renewable scientific and technological knowledge but also know how to 'stand' as scientists and 'exist' as conscious-responsible citizens, offering unwavering and effective contributions to addressing the scientific and technological, social, cultural, and other broader developmental needs of the country, as a priority, but also of the international community.

School of Electrical and Computer Engineering

The School of Electrical and Computer Engineering (SECE) is one of the nine Schools of the NTUA. In 1975, the School of Mechanical and Electrical Engineering at NTUA split into the School of Mechanical Engineering and the School of Electrical Engineering. In 1991, the School of Electrical Engineering, encompassing the rapidly evolving fields of Computer Science and Computer Engineering, was renamed to the Department of Electrical and Computer Engineering. Subsequently, upon decision by the NTUA Senate, in became the School of Electrical and Computer Engineering.

SECE covers the fields of Power Systems, Telecommunication Systems, Electronic Applications, various scientific application areas, as well as Computer Science and Computer Engineering. The undergraduate program at SECE is a five-year program leading to a Diploma in Electrical and Computer Engineering.

Postgraduate studies in SECE lead to a Doctoral Degree in Electrical and Computer Engineering. SECE has extensive participation in numerous national and European research and development programs.

The School is organized into seven sections: the Section of Electromagnetic Applications, Optics and Electronic Materials, the Section of Information Transmission Systems and Materials Technology, the Section of Signals, Control, and Robotics, the Section of Computer Technology and Computer Science, the Section of Communications, Electronics, and Information Systems, the Section of Power Systems, and the Section of Electrical Industrial Installations and Decision Systems.

The Section of Electromagnetic Applications, Optics, and Electronic Materials coordinates the following fields: electromagnetic field theory and applications, wave propagation in wireless communication systems, plasma and electron beams, structure, properties, and applications of electronic and optoelectronic materials, electromagnetic wave propagation in nonlinear media, nonlinear optics, biomedical optics, and applied biophysics.

The Section of Information Transmission Systems and Material Technology coordinates the following fields: wireless communication systems and information transmission, radar, radiometry, and telemetry, microwave and optical communications, mobile radio communications, material technology, and biomedical technology.

The Section of Signals, Control, and Robotics coordinates the following fields: signal processing, system analysis and design, automatic control systems, robotics, automation, machine learning, computer vision, and speech technology.

The Section of Computer Technology and Informatics coordinates the following fields: computation theory, hardware, software, computer systems, information systems, human-computer interaction systems.

The Section of Communications, Electronics, and Information Systems coordinates the following fields: telecommunications systems and services, information theory, computer and communication networks, electronics, microsystems, distributed computing systems, mobile and personal communications, multimedia tools and content.

The Section of Power Systems coordinates the following fields: electrical machines, power systems, high voltages, power electronics, photonics, industrial electronics, analysis/management of industrial electrical networks, economic analysis of energy and environmental systems.

The Section of Electrical Industrial Installations and Decision Systems coordinates the following fields: electrical measurement systems, industrial and building electrical installations, control of electrical machines and propulsion systems, management and decision systems, energy and environmental policy support systems.

School of Mechanical Engineering

Following the establishment of the National Technical University of Athens (1836), during the period 1844-1862, an additional Higher School was created, more technical courses were introduced, and the Mechanical Workshop was established, known as the “Ironworks Factory”. In 1887, 3 four-year Schools were founded: Civil Engineers, Mechanical Engineers, and Surveyors-Site Engineers. In 1914, the University included the School of “Engineering and Mechanical Engineering”, as the School of Mechanical Engineering was renamed, along with 3 more Schools. In 1917, the Higher School of Mechanical Engineering was transformed into the Higher School of Mechanical and Electrical Engineering, and 2 more Schools were established. In 1963, the cycle of Production Engineer was established in the School of Mechanical Engineers, and in 1968, the Department of Naval Architects was established. In 1975, the School of Mechanical and Electrical Engineering was split into two independent Schools. With the

implementation of the Framework Law for Universities in 1982, the Department of Naval Architects was separated from the School of Mechanical Engineering.

Furthermore, in 1983, with the implementation of the Framework Law for Universities, the six Departments of the School were established, which still exist today, and in 1988, the scientific subjects of the Departments were defined, which have remained unchanged since then. In 1990, the 14 Laboratories and Workshops of the School, which existed at that time, were distributed among the Departments.

In 1986, cycles of studies for "Energy" and "Construction Mechanical Engineering" were created in the School, in addition to the existing "Production Mechanical Engineering" cycle. In 1990, the cycle of "Aeronautical Mechanical Engineering" was added, which was expanded in 2000, renamed as the cycle of "Mechanical Engineering of Air and Ground Transport Means". Today, the aforementioned four cycles of studies still exist and provide students with the opportunity to partially determine the focus of their five-year studies. Additionally, since 1999, the School participates in 14 Interdepartmental Postgraduate Programmes, two of which it coordinates.

The School of Mechanical Engineering is organized into the following six Sections: Industrial Management & Business Research Department, Thermal Department, Mechanical Constructions & Automatic Control Department, Nuclear Technology Department, Fluids Department, and Processing Technology Department.

2.2. Administration

Coordinating School
The Coordinating School of the Interdepartmental Postgraduate Programme "Translational Biomedical Engineering and Science" is the School of Electrical and Computer Engineering of NTUA, which collaborates with the School of Mechanical Engineering of NTUA. The administrative support for the program is provided by the School of Electrical and Computer Engineering of NTUA.

Director:
Konstantina Nikita, Professor, School of Electrical and Computer Engineering, NTUA

Programme Studies Committee (PSC):
Leonidas Alexopoulos, Professor, School of Mechanical Engineering, NTUA

Christos Manopoulos, Assistant Professor, School of Mechanical Engineering, NTUA

Georgios Matsopoulos, Professor, School of Electrical and Computer Engineering, NTUA

Konstantina Nikita, Professor, School of Electrical and Computer Engineering, NTUA

Georgios Stamou, Professor, School of Electrical and Computer Engineering, NTUA

Steering Committee (SC):
Leonidas Alexopoulos, Professor, School of Mechanical Engineering, NTUA

Christos Manopoulos, Assistant Professor, School of Mechanical Engineering, NTUA

Georgios Matsopoulos, Professor, School of Electrical and Computer Engineering, NTUA

Konstantina Nikita, Professor, School of Electrical and Computer Engineering, NTUA

Georgios Stamou, Professor, School of Electrical and Computer Engineering, NTUA

Chair of the Studies Committee:
Konstantina Nikita, Professor, School of Electrical and Computer Engineering, NTUA

Dean of the School of Electrical and Computer Engineering:
Panagiotis Tsanakas, Professor, School of Electrical and Computer Engineering, NTUA

Secretariat of the School of Electrical and Computer Engineering:
Eufrosyne Kanta, Administrative Staff

Secretariat of the MSc Program:
Emilia Kougkoulou, Administrative Staff

Office Γ.2.3, 2nd Floor, Old Electrical Engineering Building, NTUA

Contact Number: (+30) 210 772-3859

Email: masterteam-info@ece.ntua.gr

2.3. Lecturers

The teaching duties of the Postgraduate Programmes are assigned, following a decision by the Programme Studies Committee (PSC) of the MSc Program, to faculty, members of the Special Teaching Staff (STS), Laboratory Teaching Staff (LTS), and Technical Laboratory Staff (TLS) of the participating and other Schools of NTUA or other Higher Education Institutions (HEIs), Emeritus Professors or retired faculty members of the participating Schools or other Schools of the same or other HEIs, collaborating professors, appointed lecturers, visiting professors or visiting researchers, researchers and specialized operational scientists of research and technological organizations or other research centers and institutes in Greece or abroad, as well as scientists of recognized stature, who possess specialized knowledge and relevant experience in the discipline of the MSc Program. The selected lecturers are distinguished scientists with extensive experience in the treatment of the corresponding disciplines, with extensive provision of relevant teaching work, supervision of relevant diploma theses and doctoral dissertations, production of relevant publications in international journals and conferences, and participation in relevant research projects (funded and non-funded).

Information and contact details for the lecturers can be found on the website.

Table 1. Faculty Members of the MSc Program

NAME	UNIVERSITY
Georgios Alexandridis	Assistant Professor, School of Physical Sciences, National and Kapodistrian University of Athens (NKUA)
Leonidas Alexopoulos	Professor, School of Mechanical Engineering, National Technical University of Athens (NTUA)
Marios Anagnostakis	Professor, School of Mechanical Engineering, National Technical University of Athens (NTUA)
Hypatia Anagnostopoulou	Associate Professor, School of Medicine, National and Kapodistrian University of Athens (NKUA)
Athanasios Voulodimos	Assistant Professor, School of Electrical and Computer Engineering, National Technical University of Athens (NTUA)
Spyretta Golemati	Associate Professor, School of Medicine, National and Kapodistrian University of Athens (NKUA)
Christos Manopoulos	Assistant Professor, School of Mechanical Engineering, National Technical University of Athens (NTUA)

Petros Maragos	Professor, School of Electrical and Computer Engineering, National Technical University of Athens (NTUA)
Angelos Markopoulos	Associate Professor, School of Mechanical Engineering, National Technical University of Athens (NTUA)
Georgios Matsopoulos	Professor, School of Electrical and Computer Engineering, National Technical University of Athens (NTUA)
Konstantina Nikita	Professor, School of Electrical and Computer Engineering, National Technical University of Athens (NTUA)
Evangelos Papadopoulos	Professor, School of Electrical and Computer Engineering, National Technical University of Athens (NTUA)
Ourania Petropoulou	Member of Laboratory Teaching Staff (LTS), School of Electrical and Computer Engineering, National Technical University of Athens (NTUA)
Christoforos Provatidis	Professor, School of Mechanical Engineering, National Technical University of Athens (NTUA)
Vasileios Spitas	Professor, School of Mechanical Engineering, National Technical University of Athens (NTUA)
Georgios Stamatakis	Researcher Grade A', Institute of Communication and Computer Systems, National Technical University of Athens (NTUA)
Georgios Stamou	Professor, School of Electrical and Computer Engineering, National Technical University of Athens (NTUA)
Konstantinos Tzafestas	Associate Professor, School of Electrical and Computer Engineering, National Technical University of Athens (NTUA)
Nikolaos Chronis	Professor, School of Chemical Engineering, National Technical University of Athens (NTUA)

3. Regulation of the MSc Program

3.1. Curriculum

- The MSc program awards a Diploma of Postgraduate Studies (DPS) – Master of Science in the field of "Translational Engineering in Health and Medicine" upon successful completion of the relevant cycle of studies.
- The curriculum consists of two (2) semesters of coursework and one (1) semester of completion of the Postgraduate Diploma Thesis (PDT). To obtain the DPS, students are required to attend and pass exams in 12 courses (7 core courses and 5 electives) totaling 60 European Credit Transfer and Accumulation System (ECTS) credits. Additionally, the elaboration and successful presentation of the PDT is equivalent to 30 ECTS credits. The redistribution of courses in the MSc program may be decided by the competent bodies.
- The courses (core and elective) taught each academic year are determined by decisions of the competent bodies and are listed in the Study Guide and in the "Courses" section of the MSc Program's website (https://masterteam.ntua.gr).
- The language of instruction for the courses is English.

- The language of writing for the Postgraduate Diploma Thesis is English.

3.2. Attendance and Student Evaluation

- Attendance in classes and participation in related educational activities and assignments are mandatory. In cases of extremely serious and documented reasons for absence, the Programme Studies Committee (PSC) may justify certain absences, the maximum number of which cannot exceed one-third of the lectures in a course. A postgraduate student who has not completed the required number of attendances in a course has the right to retake the course (or an equivalent one determined by the PSC) in the next and final academic year of studies.
- Grading in courses is on a scale of 0-10, without fractional parts, with a minimum passing grade of 5. The grade of a course is determined not only by the final exam but also significantly by performance in applied teaching methods (labs, computer labs, seminars, fieldwork, projects, group work with personal presentations) adopted during the course, with a relative weight determined for each course by the respective lecturer, not less than 30% of the total grade of the course. It is clarified that only the grade of the Postgraduate Diploma Thesis (PDT), given by the individual examiners and as an average, may include half-unit fraction.
- The final exam is conducted after the end of the teaching period of the academic semester, during a two-week examination period, in accordance with the Unified Academic Timetable of the University's Postgraduate Studies and the specific decisions of the PSC.
- There is no provision for resit exams. In exceptional cases, the PSC may, with its documented decision, accept an additional exam for up to two (2) courses per student per academic year, if the postgraduate student was unable to take the examination due to force majeure. The PSC may also, in exceptional cases, schedule resit exams.
- Students who fail courses may re-enroll in the same (or different if they are elective) courses the following year.
- If a postgraduate student fails in the examination of up to two courses, so that according to the provisions of this Regulation it is considered that they have not successfully completed the program, they may be examined following a documented decision of the PSC, upon their request, by a three-member committee of the School's Faculty Members, who have the same or related discipline with the examined course and are appointed by the PSC of the MSc program. The lecturers of the course are excluded from the committee.
- Classes that were not conducted must be rescheduled to ensure that the number of 13 educational weeks for all courses is completed. The rescheduling is decided and announced by the PSC of the MSc Program, ensuring compliance with the academic timetable, as far as possible.

3.4. Postgraduate Diploma Thesis (PDT)

- The undertaking of the Postgraduate Diploma Thesis (PDT) can take place after the end of the 2nd semester of the first year of studies, provided that the postgraduate student has successfully passed at least half of the postgraduate courses required for the acquisition of the Diploma of Postgraduate Studies – Master of Science. For postgraduate students who re-enroll for courses of the 1st or 2nd semester in the following year, the PSC decides on the possible commencement of the PDT from the beginning of the second academic year of studies.

- The postgraduate student submits an application, including the proposed title of the PDT, the proposed supervisor, and a summary of the proposed work. The supervision of the PDT is assigned to lecturers (Faculty Members, emeritus Professors or retired Faculty members, collaborating professors, appointed lecturers, visiting professors or researchers) of the MSc Program. Based on the application, the PSC appoints the PDT supervisor and forms a three-member examination committee for the evaluation and approval of the work.
- The three-member examination committee is formed upon the proposal of the supervisor and includes the supervisor and two other Faculty members, at least one of whom is a lecturer of the MSc Program. The members of the examination committee must have the same or related scientific expertise as the discipline of the MSc Program.
- With the proposal of the supervisor, scientific advisors, doctoral candidates, and other scientific collaborators of the NTUA or invited lecturers from outside the NTUA may assist in the elaboration of the PDT. It is also possible for technical staff (STS, LST, TLS, etc.) to participate as needed.
- The grading of the PDT is determined as the average of the grades of the three examiners on a scale of 1-10 and is rounded to the nearest half unit, with a minimum passing grade of 5.5 (five and fifty percent). The PSC establishes uniform evaluation criteria for the PDT.
- The text of the PDT is composed in English with text processing in the format approved by the PSC, it is submitted electronically but also in printed form if requested by the examination committee and the Library of NTUA, and includes a table of contents, bibliographic references, and an abstract of 300 to 500 words. After the approval of the PDT by the Examination Committee, the postgraduate student is required to deposit an electronic file of the work in the Central Library of NTUA and to submit electronically the file of the work to the Institutional Repository of NTUA. PDTs approved by the Examination Committee are posted on the website of the MSc Program.
- If the PDT is not successfully completed within the 3rd semester of studies, it may be continued for one more academic period. In this case, the postgraduate student is obliged to submit a progress report of the PDT, with a detailed description of accomplishments, a detailed timeline of the next significant steps, and the expected completion date of the PDT. The progress report of the PDT is co-signed by the postgraduate student and the supervisor and is submitted to the PSC for review.

3.5. Award of the Diploma of Postgraduate Studies – Master of Science

- For the award of the Diploma of Postgraduate Studies (DPS) – Master of Science, successful attendance and examination in the prescribed number of postgraduate courses and successful elaboration and presentation of the Postgraduate Diploma Thesis (PDT) are required. If this is not achieved within the maximum prescribed duration of studies, the postgraduate student receives a simple certificate of attendance for the postgraduate courses in which they have been successfully examined.
- The overall grade of the DPS is determined as the weighted average of the grades of the postgraduate courses and the PDT, which is considered equivalent to one (1) semester of courses.
- Once a year, specifically in November, the Secretariat of the coordinating School prepares a list of those who have successfully completed all the graduation requirements by the end of the academic year. The degrees are awarded annually by the Coordinating Schools, in a special ceremony, by the Dean of the coordinating School and the Director of the MSc Program.

3.6. Student Mobility - Scholarships

The MSc program "Translational Engineering in Health and Medicine" offers selected students opportunities for internships at the Department of Biomedical Engineering of Columbia University in New York (CU), supported by the Bodossakis Foundation.

Internships take place during the summer and last for 1-2 months. Topics for internships include Medical Imaging, Biomechanics, Tissue Engineering, and Neuroengineering.

Interested students, invited during the start of the spring semester, are called upon to express their interest in interning at Columbia University by sending an email to masterteam-info@ece.ntua.gr, including a recent curriculum vitae (up to 2 pages) along with a statement of purpose (up to 1 page) indicating their preferred topic.

The evaluation of applications is conducted by a selection committee appointed by the Programme Studies Committee (PSC), based on the curriculum vitae and the statement of purpose, as well as the performance in the courses of the MSc Program during their first semester of studies. Selected candidates included in the shortlist are invited to an interview conducted by professors from NTUA and CU.

For the final selection among candidates, the interview is assessed, taking into account the total amount of available funding and the number of positions offered in the hosting laboratories of Columbia University.

The internships of students are supported by scholarships provided by the Bodossakis Foundation and Columbia University. Scholarships cover travel expenses (ticket, visa issuance, etc.) and accommodation at the Guest Housing of Columbia University.

In addition, postgraduate students have the opportunity to conduct their Postgraduate Diploma Thesis for an academic semester abroad: (a) within the framework of collaboration with Columbia University, (b) within the Erasmus+ program for studies at Higher Education Institutions in program countries, where an Erasmus Charter for Higher Education has been awarded, or (c) within the framework of academic collaborations established by the MSc program with research bodies, organizations, NGOs, public and private sector companies, or Higher Education Institutions in Greece and abroad.

3.7. Duration of Studies

- The minimum duration of studies in the MSc program is 3 academic semesters, with a maximum duration of enrollment period of 2 years.
- In exceptional cases, where a postgraduate student successfully completes the graduation requirements in a period shorter than the minimum prescribed duration of the MSc program, and in any case, within at least one (1) year, the Programme Studies Committee (PSC) may, by decision, recommend to the Senate of the NTUA the award of the Diploma of Postgraduate Studies (DPS) – Master of Science.
- The maximum period for completing the MSc Program, calculated from the initial enrollment, is two (2) years. Upon finishing the second year, the PSC decides to terminate enrollment and issues a certificate listing the courses and corresponding grades in which the student has been successfully examined. In special cases, a slight extension of up to one (1) additional year may be granted upon a justified decision by the PSC.

- Postgraduate students have the option to temporarily suspend their studies upon written request, for a period not exceeding two (2) consecutive academic semesters. These suspended semesters do not count toward the prescribed maximum duration of enrollment.

4. Curriculum

4.1. Organization of Courses

The curriculum comprises (2) semesters of coursework and one (1) semester dedicated to the completion of the Postgraduate Diploma Thesis. To obtain the Diploma of Postgraduate Studies – Master of Science, students are required to attend and successfully pass 12 courses (7 obligatory core courses from Group A and 5 elective courses from Group B) which collectively correspond to 60 ECTS credits. The elaboration and successful presentation of the Postgraduate Diploma Thesis is equivalent to 30 credit units (ECTS). The distribution of credits per semester is presented in Table 2.
The detailed curriculum of the MSc Program “Translational Engineering in Health and Medicine” is provided in Tables 3 and 4.
It should be noted that during the first semester of their studies, students who are Engineers or graduates of departments of natural sciences are enrolled in the course "Life Sciences for Engineering", while students who are graduates of health science departments take the course "Engineering for Biomedicine". The remaining three obligatory courses are common for all students.

Table 2. Courses/PDT and Credits (ECTS) per Semester

FIRST SEMESTER	
COURSES	**ECTS**
OBLIGATORY COURSES (4)	20
ELECTIVE COURSES (2)	10
TOTAL SEMESTER (6 courses total)	**30**
SECOND SEMESTER	
COURSES	**ECTS**
OBLIGATORY COURSES (3)	15
ELECTIVE COURSES (3)	15
TOTAL SEMESTER (6 courses total)	**30**
THIRD SEMESTER	

POSTGRADUATE DIPLOMA THESIS	**ECTS**
COMPLETION OF POSTGRADUATE DIPLOMA THESIS	30
OVERALL TOTAL	**90**

Table 3. Winter Semester Courses

Course Code	Course	ECTS
	OBLIGATORY	
1000	Life Sciences for Engineering*	5
1001	Engineering for Biomedicine**	5
1002	Biostatistics and Machine Learning	5
1003	Biosignal acquisition and processing	5
1004	Research methodology	5
	ELECTIVE (choose 2 out of 3)	
1100	Translational bioinformatics	5
1101	Biomechanics	5
1102	Biodesign fundamentals	5

Table 4. Spring Semester Courses

Course Code	Course	ECTS
	OBLIGATORY	
1005	Medical imaging and image analysis	5
1006	Computational modeling and simulation for medicine	5
1107	Artificial Intelligence in healthcare	5
	ELECTIVE (**choose 3 out of 4**)	
1103	BioMEMS	5
1104	Introduction to neuroscience and neural engineering	5
1105	Healthcare robotics	5
1106	Biodesign innovation process***	5

* Obligatory course for Engineers and graduates of STEM field

** Obligatory course for graduates of health sciences

***Prerequisite: Biodesign Fundamentals

4.2. Course Content

Winter Semester Courses

Life Sciences for Engineering

An introductory outline of the basic anatomy and physiology of the human body for engineers. The objective of this course is to present the various levels of structural organization of the body, from chemical through cellular and tissue organization to organ, system, and whole body structure and function. The role of physical principles and phenomena as they are known to exist and apply to living systems will be highlighted in engineering terms. The aim is to (i) develop a quantitative intuition of biological systems; (ii) understand how principles in engineering can be used to study biological processes; and (iii) understand the relationships between structure and function at different size and time scales. Guest lectures will include engineers and medical scientists to discuss the relationship between recent advances in biomedical engineering and the underlying anatomy and physiology.

Lecturers: Y. Anagnostopoulou, S. Golemati, K. Nikita

Engineering for Biomedicine

The course is mandatory for Health Sciences graduates and provides an overview of the fundamental concepts and principles of engineering as it applies to biology, medicine, and healthcare. Basic principles of mathematics, computational thinking, physics, mechanics, mechanical design, and electronics will be covered, along with medical use cases, so as to achieve an understanding of advanced technological achievements in healthcare and medicine. A problem-based introduction to building algorithms and data structures to solve problems in medicine and healthcare with a computer will also be provided. The course will include an introduction to (i) Matlab, as a standard tool to the fundamentals of computer programming and (ii) Python, via Google's Colaboratory (Colab) and DataCamp, focusing on the analysis and visualization of biomedical data. The course will empower those with non-engineering backgrounds with the knowledge required to critically evaluate and use these technologies in healthcare and medicine.

Lecturers: S. Golemati, Ch. Manopoulos

Biostatistics and Machine Learning

This course provides an introduction to statistical methods used in biological and medical research. Elementary probability theory, basic concepts of statistical inference, regression and correlation methods, and sample size estimation are covered, with emphasis on applications to medical problems. New statistical techniques for both predictive and descriptive learning as applied to the rapidly growing in amount and complexity data collected in imaging, genomic, health registries, wearables are also covered. Machine learning algorithms for classification and prediction, particularly useful for big and complex data, will be presented. Topics include principles of supervised learning, including Bayesian classifiers, decision trees, regression models, support vector machines (SVMs), as well as principles of unsupervised learning, including clustering and density estimation.

Lecturers: M. Anagnostakis, A. Voulodimos, G. Alexandridis

Biosignal acquisition and processing

In this course, students learn about different physiological signals of electrical type such as Electrocardiography (ECG), Electroencephalography (EEG), Electromyography (EMG), and of non-electrical type such as blood pressure, blood flowrate, cardiac output, cardiac rate, heart sound, respiratory rate, blood PH, plethysmography, blood gas analysis, etc. Students learn the origins of the

biosignals, how they are collected and measured, what kind of sensor technology is required, and how they are analyzed. Signal processing techniques for different types of biosignals are discussed, including preprocessing for the removal of artifacts, coding, feature extraction, and modeling. The course includes hands-on sessions aiming to program these techniques in Matlab/Python, apply them to biomedical signals, and critically evaluate their performance.

Lecturers: G. Matsopoulos, O. Petropoulou

Research methodology

This course provides an opportunity for students to establish or advance their understanding of research through critical exploration of research language, ethics, and approaches. It focuses on translational research and provides the fundamentals towards the design and conduct of "use-inspired" research, by building upon basic scientific research and synthesizing knowledge to develop a new or improved drug, device, diagnostic, or behavioral intervention. The elements of the research process within quantitative, qualitative, and mixed methods approaches are introduced. Topics to be covered include: Searching and critically analyzing the latest research, Understanding statistics in quantitative research, Critical appraisal, Writing a research protocol, The setting up of a project, Patient and public involvement in research, Selecting robust outcome measures, Qualitative research methods, Writing a scientific manuscript, Assessing the impact of research, Getting research funding, Disseminating research. The course includes hands-on exercises and "journal clubs", where students evaluate and present the research methodology of specific scientific publications of interest.

Lecturers: K. Nikita, G. Stamatakos

Translational Bioinformatics

The course aims at presenting both algorithms and technologies for the analysis of biomedical data at the cellular and subcellular level (e.g. genomics and proteomics) and their translation into diagnostic, prognostic, and therapeutic applications in medicine. The course presents: a) the principles of molecular biology related to cell characteristics, DNA, RNA and gene analysis, focusing on the relation of biology with computer science, b) the basic techniques and algorithms for sequence comparison and statistical data processing, c) the basic IT infrastructure in which biological data is stored, with particular emphasis on online accessible databases along with the most important software tools used for their analysis (processing, cross-referencing, sharing and archiving of bioinformatics data, etc.), d) utility and limitations of public biomedical resources, e) issues and opportunities in drug discovery, and mobile/digital health solutions.

Lecturers: G. Matsopoulos, O. Petropoulou

Biomechanics

This course introduces students to the mechanical principles that can be applied to study the structure function relationship at different scales, from the molecular and cellular to the tissue and system scales. At the molecular and cellular levels, the course examines how mechanical quantities and processes such as force, motion and deformation influence molecular and cell behavior and function, with an emphasis on the connection between mechanics and biochemistry. At the tissue and system levels, solid and fluid mechanics are introduced, and applications in the musculoskeletal, respiratory, cardiovascular and urinary systems are discussed.

Lecturers: Chr. Manopoulos, Chr. Provatidis, V. Spitas

Biodesign Fundamentals

This is the first part of a two-semester course. Multidisciplinary teams of students identify real-world medical needs, evaluate their potential health and commercial impact, invent new health technology products to address those needs, and plan their full implementation into patient care. In this first course, the students either bring their own ideas or identify real-world needs by visiting clinical settings and interviewing end-users. Via a well-structured process that includes stakeholder analysis and market analysis, the students prioritize the ideas and select the ones that will be implemented in the subsequent semester in the course "Biodesign Innovation Process".

Lecturers: L. Alexopoulos, K. Nikitas

Courses of the Spring Semester

Medical Imaging and Image Analysis

The course is aimed to teach the principles of biomedical imaging and the foundation techniques required to process, analyze, and use medical images for scientific discovery and applications The first part of the course will provide students with the underlying principles of biomedical imaging including the basic physics and mathematics associated with each modality (X-ray CT, SPECT, PET, ultrasound, and MRI). The second part of the course will introduce concepts of digital images and will focus on analytic, storage, retrieval, and interpretive methods to optimally use the increasingly voluminous imaging data and integrate and understand them in the context of complementary molecular and clinical information to improve diagnosis and therapy in medicine.

The use of Machine Learning to improve performance of sensing and imaging algorithms will be covered along with principles and algorithms of deep learning to process and analyze biomedical images. Topics covered in the course include: Types of imaging methods and how they are used in medicine; Image processing, enhancement, and visualization; Computer-assisted detection, diagnosis, and decision support; Access and utility of publicly available image data sources; Linking imaging data to clinical data and phenotypes.

Lecturers: M. Anagnostakis, S. Golemati

Computational modeling and simulation for Medicine

Primary focus is on quantitative and computational methods to understand and/or model the pathophysiology of complex biological systems and develop efficient therapeutic interventions. Methods for multiscale/multilevel modeling and system identification are covered as applied towards understanding and analyzing biology, from individual molecules in cells to entire organs, organisms, and populations. Some examples include modeling of the glucose-insulin metabolic system, multi-scale cancer modeling and in silico oncology, construction of models to study cardiovascular system health. Modeling and simulation of medical devices such as artificial kidney, artificial heart and heart valves, are also covered, along with prototype manufacturing using 3D printing technology.

Lecturers: Chr. Manopoulos, V. Spitas, G. Stamatakos

Artificial Intelligence in Healthcare

This course involves a deep dive into recent advances in AI in healthcare, focusing in particular on deep learning approaches for medicine and healthcare problems. The course will start from foundations of neural networks and will then cover cutting-edge deep learning models in the context of a variety of healthcare data including image, text, multimodal and time-series data. Metrics unique to healthcare, as well as best practices for designing, building, and evaluating AI-based approaches in healthcare will be presented. Advanced topics on open challenges of integrating AI in healthcare, including interpretability,

robustness, privacy and fairness will also be covered. The course aims to provide students from diverse backgrounds with both conceptual understanding and practical grounding of cutting-edge research on AI in healthcare.

Lecturers: K. Nikita, G. Stamou, A. Voulodimos, G. Alexandridis

BioMicroElectroMechanical Systems (BioMEMS)

This course targets to: (1) introduce fundamental design and microfabrication concepts of BioMEMS (including microfluidics and lab-on-chip systems) and (2) expose students to the relevant biomedical and biological applications of BioMEMS. The course is divided into three main sections: (i) Microfabrication and Materials of BioMEMS, (ii) Design of BioMEMS sensors and actuators, and (iii) BioMEMS applications.

Lecturers: N. Chronis, A. Markopoulos

Introduction to neuroscience and neural engineering

This course examines a range of neural engineering approaches to investigating and intervening in the nervous system, emphasizing quantitative understanding and fundamental engineering concepts. Modern neural engineering techniques to measure and modulate neural activity and manipulate how an organism perceives, thinks, and acts are covered. The course focuses on the computing essence of neural processes and explores the relationship with molecules, spikes and synapses. Topics related to synaptic plasticity, learning and memory are examined. Based on the biophysics of brain computation, neurons are also explored as spike processing machines for creating intelligent algorithms inspired by the brain's complexity and self-organization.

Lecturers: K. Nikita, G. Matsopoulos

Healthcare robotics

The course intends to explore human robot interaction (HRI) in healthcare and cover the entire continuum of care from hospital to home, by tackling robotic challenges in surgery, assistance, and rehabilitation — three domains where robots are having the biggest impact. The course will also explore how artificial intelligence is used in surgical procedures, to improve precision diagnostics, in exoskeleton technology, and for patient care. Topics to be covered include: medical imaging-guided surgery; minimally-invasive surgery through miniaturization, novel actuation and sensing; robotic surgery at tissue and cell levels; autonomous robotic systems to assist with daily living activities; multi-modal robot interfaces; robotics-based rehabilitation technologies; upper limb rehabilitation robots; wearable exoskeletons and sensors; implanted neural interfaces.

Lecturers: P. Marangos, E. Papadopoulos, K. Tzafestas

Biodesign innovation process (prerequisite: Biodesign fundamentals)

In this course, students are introduced to various aspects of medical device entrepreneurship. The students acquire a very diverse set of soft skills and are exposed in all steps required to bring a research discovery to a medical product or service. Lectures will be centered around case studies and often given by guest speakers from start-ups, regulatory experts, patent attorneys, clinical trial specialists, and investment firms to give students a sense of the process and challenges in developing their own business idea. Students will have the opportunity to discuss case studies based on other people's experience of bringing medical devices to market and the specific challenges associated with the development of new products in the medical sector.

Lecturers: K. Nikita, L. Alexopoulos

4.3. Academic Timetable

Winter Semester:

- September25th, 2023: Start of registrations
- October 13th, 2023: End of registrations
- October 2nd, 2023: Start of classes
- October 20th, 2023: Issuance of lists by the Secretariat of postgraduate students in each course
- January 12th, 2024: End of classes
- January 15th, 2024: Start of period for other educational needs and examinations
- February 9th, 2024: End of examination period
- February 16th, 2024: Submission of grades

Spring Semester:

- 12th February 2024: Start of classes and registrations
- 19th February 2024: End of registrations
- 23rd February 2024: Issuance of lists by the Secretariat of postgraduate students enrolled in each course
- 24th May 2024: End of classes
- 27th May 2024: Start of period for other educational needs and examinations
- 21st June 2024: End of examination period
- 28th June 2024: Submission of grades

Holidays

- October 28th
- November 17th
- Christmas and New Year holidays (December 23rd - January 6th)
- January 30th
- Clean Monday (March 18th)
- March 25th
- Easter holidays (starting on Easter Monday and ending on Thomas Sunday, April 29th - May 12th)
- May 1st (Labour Day)
- Holy Spirit Day (June 24th)

5. Access and services for the students

5.1. Access

Zografou Campus

The School is situated in two buildings inside the Zografou Campus, the Old and New ECE buildings. The secretariats and the administrative services are in the New buildings, while the faculty offices are both in the New buildings and in the Old buildings. Lectures take place in both buildings. The location of the buildings can be seen in the map below. Both ECE buildings are denoted on the map. New buildings are towards the North of the Campus, Old buildings towards the South.

Transport Service

Bus:
Line 242 (Katechaki - Polytehneioupoli) enters from the Gate "Katechaki" and goes around the campus.

Line 140 (Polygon-Glyfad) stops outside the Gate "Katechaki".
Lines 230 (Acropolis - Polytechnioupoli) and 608 (Galatsi - Academy - Zografou) stop near the Gate "Zografou". Please consult the website of OASA (Athens Urban Transport Organization) for complete itineraries.

Underground:
The nearest station is “Katechaki”. From there you can get the bus lines 140 and 242. On weekdays during 8.00-9.30, the university is accessible from the station "Katechaki" with bus granted by the rectory.

Car:
Cars enter the campus mainly from gates “Katechaki” and “Kokkinopoulou”. The gate “Zografou” in Iroon Polytechniou street is open for cars only from 07:00 to 09:00 and from 14:00 to 16:00. Inside the premises there are sufficient parking places for the members of the academic community as well as for visitors.

Postal Address

National Technical University of Athens
School of Electrical and Computer Engineering
9, Iroon Polytechniou St
Athens, Postal Code 157 72

5.1. Services for the students

Student ID Card

All students, both undergraduates and postgraduates, receive a student ID card, which proves that they have been students for no longer than the normal period required to obtain a degree plus two years. It is valid for one academic year and entitles the holder to a discount of between 25% and 50% on tickets for buses, trains, ships, museums and art exhibitions. It is issued to students by the School Secretariats following registration at the beginning of the academic year, and requires a photograph. **Academic ID card acquisition service**

Student Meal Card

It allows students, whose income is low, to have lunch and dinner at NTUA’s restaurants (at both the Zografou and Patision Campuses). For further queries about the card and how to apply, please contact the Student Support Office (Thomaidion Centre for Publications). The rest of the students can have lunch or dinner at the restaurants paying only a small amount of money. For further information, you can contact Ms K. Giakoumaki (210-772-2192) and Ms. G. Sotiropoulou (210-772-2192). **Student Meal Card application form**

Health Care

All students are entitled to free healthcare. It can be obtained with a student health book issued at the Zografou Health Centre on presentation of an identity card, student ID card, photographs and a sworn statement as per Law 1599/86. Healthcare includes immediate medical assistance, pharmaceutical care, dental care, treatment by a doctor, hospital care for inpatients and outpatients, health centre examinations and special treatment, and care for chronic diseases. Pharmaceutical care involves the granting of free medicine to students from designated pharmacies. Medical and dental care provides the same care as for civil servants. This care can also be provided by designated dentists at no charge to students. A list of designated doctors and pharmacies is provided by the M edical Service. Home treatment is available only in serious circumstances or emergencies.

Hospital care is provided to every patient who is a student at the University after a medical diagnosis and the approval of the M edical Service. Tests are conducted at public clinics. Because NTUA has a microbiology laboratory which belongs to the Medical Service, it is able to serve students directly. Prescriptions and referrals for health centre examinations from private doctors not designated by the Student Club are recognised if they are approved by the NTUA Medical Service. Provision of healthcare applies for the years of study, defined as the normal length of undergraduate or postgraduate studies in a School, plus 2 years. In the final year of studies healthcare is extended beyond the end of the academic year until 31st December of the same year for any students who have not yet received their degrees. More Information: 210-772-1566 Mrs. M. Katrani

Special Counselor

At the National Technical University of Athens, a **group of experts-counselors** provide their services to students who face difficulties in relation to their studies, stress and anxiety, difficulty in dealing with student life or living in the city, or other problems such as those related to social relations (conflicts with the family, or friends), feelings of isolation and mood change, health problems, and other personal issues. For further information, contact the **Career Office** career@central.ntua.gr and specifically Ms Eleni Paspaliari and Ms S. Nika.

Zografou Halls of Residence

At the Zografou campus, there are two Halls of residence: the old building and the new buildings at Zografou. The old 12-storey building has been open since 1975 (Iroon Polytechneiou Street) and is mainly used by students of other Universities (only 1% of NTUA students live there). The **new Halls of Residence** (15 buildings at Kokkinopoulou Street, 6A)), which are monitored by The Youth & Lifelong Learning Foundation, have been open since 2005.

Employment and Innovation Offices

NTUA houses offices that serves students and new graduates of the university in the first stages of their academic and professional careers. All students and graduates of NTUA have access to a specially equipped area with a computer network where they can get information in printed and electronic form on: Postgraduate studies in Greece and abroad, Scholarships, Continuing or supplementary education, Careers advice, Jobs (summer, part-time or full-time)

The Employement and Career offices of the NTUA are the following:

- **Practical Training Office**
- **Innovation and Entrepreneurship Unit**

Career Office

The **Career Office** has been set up to offer to students and recent graduates of the NTUA, support and systematic information on matters concerning their studies and on issues related to the planning of their professional career. Through the office's website you can learn about topics that might be of interest, such as:

- Postgraduate studies in Greece and abroad
- Scholarships in Greece and abroad
- Job opportunities
- Seminars and lectures
- Consulting issues
- Issues of entrepreneurship
- Broader issues covering student and/or professional interest
- Studies concerning the labor market of engineers

Alumni Association

There is also an Alumni Association at the Zografou Campus to serve the 40000 graduates of the University, whose job is to promote closer relations between graduates and NTUA, inform graduates about the activities of the NTUA, mutual support of graduates and the university in areas where the conditions require it.