

Erasmus Policy Statement

The National Technical University of Athens (NTUA) is the pre-eminent educational institution in Greece in the field of engineering and technology. The overarching strategy of NTUA is, not only to maintain its position, as an internationally distinguished institution, in every respect, and a reputable institution of science and technology, but also to continuously strengthen its position with regard to both its mission and its fundamental services. To honour this distinguished position and fulfil its national mission, NTUA:

- enhances its educational and research offer in Greek, European, and international contexts,
- supports the independent development of Greece through new scientific actions of European and global scope, and
- strengthens, in practice, the Greek presence in European and international scientific and research fields.

An important aspect with regard to the above objections is NTUA's international with educational and research institutions in Europe, Asia, America, and so on.

The National Technical University of Athens serves as a leading centre for teaching and research in the fields of Engineering, Chemistry, Applied Physics, and Mathematics in Greece, the Balkans, Europe, and also internationally. Within NTUA's key strategic goals is inter-university cooperation with both economically developing countries as well as with technologically and academically advanced countries. A further key strategic goal is the initiation and development of new partnerships, with view to improving its educational processes, its graduates' educational standards at all educational levels, the expansion of its high calibre research collaborations, and the international outreach and promotion of the Institution to an international coordinating body for education, research, innovative applications, and dissemination of culture.

The National Technical University of Athens maintains an outstanding standard in both human resources and in its educational and research laboratory equipment.

NTUA participates in European and international programmes, aiming to provide an intercultural perspective to its students. To that end, NTUA aims to enrich its curriculum with European and international content and ensure high-level professional employment for its graduates.

Specific initiatives include: intercultural cooperation agreements, curriculum enhancement, emphasis on acquiring diverse learning experience by studying abroad, and the development of programmes for overseas students, with more than 400 exchange agreements and more than 300 incoming and outgoing students every year.

OBJECTIVE OF INTER-UNIVERSITY COOPERATION

The strategic criteria for the development of inter-university cooperation are in place to ensure the best possible improvement of the educational processes taking place at NTUA and the high-quality training of our graduates at all levels, the expansion of high calibre research collaborations, and the international outreach and promotion of the Institution to an international coordinating body for education, research, innovative applications, and dissemination of culture.

Education constitutes NTUA's utmost priority, along with research, in order both to maintain the exceptional tradition that has been established over the years and to improve through collaboration, exchange, and introduction of new methods and procedures into the educational scene.

The participation and enhancement of inter-university relations along with the design of joint educational and research programmes significantly increases the potential for the development of new common scientific methods for education and research.

The main priority of inter-university cooperation is to offer students of all levels the opportunity to study at another University, to complete their internship, or to undertake a Diploma or Ph.D. thesis at a foreign Higher Education Institution or an International Centre of Excellence in Research.

A number of students have seized this opportunity, ably assisted by their instructors, through exchange programmes. However, it is necessary to foster a more systematic understanding of the need to increase mobility and internationalisation of education for the benefit of our graduates and the excellence of the institution.

GEOPOLITICAL COOPERATION STRATEGY

- For the universities of all European countries:** there are already active partnerships through Erasmus, Erasmus Mundus, and so on, international collaboration programmes, Excellence Networks, and collaborations with countries in other continents.
- Cooperation with non-European countries is aiming at:** educational partnerships with countries seeking cooperation on technology, technical know-how, and research and development transfer, in the context of development assistance to countries subsidised for this purpose by the European Union, cooperation with economically emerging and technologically advanced countries, and also cooperation with countries with advanced technical know-how, such as Japan, the USA, Canada, Australia, and, generally, with G-7 countries.

- c) **With Mediterranean countries:** NTUA can play a decisive and leading role in the development of inter-university cooperation. More specifically, in the Balkan countries, many existing partnerships can be further strengthened, taking into consideration that NTUA can provide a bridge of trust, friendship, scientific and technological competence in the effort to establish inter-university partnerships with: the Balkan Countries, the Middle East, North Africa, Black Sea Countries.

NTUA will investigate the possibility of new research collaborations with overseas institutions for the development of new research infrastructures, which, aside from improving on NTUA's current research capabilities, also offer innovative applications.

Effective deployment of human resources together with the exceptional level of infrastructure of the university facilities are key elements towards achieving the goals of inter-university collaboration.

- **Research:** Research constitutes an integral part of education, and it is essential for the renewal of knowledge and the reformation of the curriculum. The exploitation of research programmes in Greece and in the EU, through student participation in educational research programmes as well as the exchange of scientists between collaborating institutions will further strengthen the high level of research at NTUA.
- **International and European Research and Education Organisations:** NTUA is already an active participant in International and European organisations and in many international collaborations through European and other research networks. Our experience and practice with organisations such as CERN, SEFI, CESAER, UNESCO, EAU, ETALS, FEANI, WFEA, and so on, for many decades, can guide and inform the process of participating in other international organisations.
- **Technology & Know-How Transfer – Innovation,** through NTUA's participation in joint international research and educational programmes, constitutes the natural continuation and culmination of the educational and research process, for the benefit of the academia and the industry, and forms the interconnection between the two.
- **Development and Employment:** Development, either as know-how transfer, or as innovation development, or as local development support, or as cooperation with development agencies, constitutes both the goal and the subject matter of inter-university collaborations for the employment of young graduates. Development also encourages young researchers' search for employment opportunities.

The actions of Erasmus+ are expected to yield positive and long-term results to NTUA and its involved Institutions, such as:

- Development of joint European programmes
- Development of joint postgraduate study programmes, with an initial emphasis on specialised 3rd cycle courses and the co-supervision of post-graduate theses and Ph.D. dissertations as the future goal
- Organisation of conferences, lectures, and summer schools
- Development of partnerships and establishment of future partnerships
- Encouragement of research and entrepreneurship in the form of technology transfer and innovation
- A wider understanding and response to social, linguistic, and cultural diversity
- An enhancement of students' intercultural competence
- Strengthening the academic and research profile of the participants through recognition and certification of their skills and qualifications.
- Strengthening collaborations of students working in various research fields while also expanding their employment opportunities.
- Encouraging research and entrepreneurship in the form of technology and innovation transfer between NTUA and the involved Institutions, which may not be limited to academic *milieu*.

These actions aim at the development of wider networks. The above activities are expected to generate added value to NTUA, to the involved Institutions and to the participating organisations with regard to their academic and research mission as well as their international presence. The outcomes of the actions of the Erasmus+ programme are published on the main NTUA website and the website of the NTUA European Educational Programmes Office for both the academic and the wider community.

Since NTUA's field of activity coincides with that of many organisations interested in modern applications, more efforts will be made in the future to integrate these organisations and companies in the implemented actions.

NTUA's European Educational Programmes Office will keep a record of the organisations, research centres, and companies that may participate in a corresponding programme for undertaking postgraduate theses and Ph.D. dissertations.

The dissemination of project results is achieved through press and media announcements, social media posts, development and operation of a related website, production of targeted information material as well as widespread publicity of public events implemented within the programme.

The proposed activities will be of great value to all the involved institutions, given that Higher Education Institutions will acquire thorough knowledge and extensive experience from the proposed mobility activities. The impact of the proposed mobility activities will be further increased as the cooperation

between NTUA and the involved Institutions could initiate additional collaborations between Greek Institutions at a national and a European level.

Staff mobility from NTUA to the partner Higher Education Institutions is expected to offer prospects for the structure, management, and operation of NTUA and, most importantly, for creating synergies in relation to internationalisation.

Moreover, lecturers will have the opportunity to share the latest results of their research, future research projects, and also to enhance the development of research consortia or joint projects. They will also discuss in more detail the possibility of offering joint degrees. Faculty members will substantially benefit from experiencing different teaching perspectives, putting forward new ideas to their respective institutions, and exchanging knowledge on specific programmes of study, teaching methods, educational tools, and teaching practices.

European and international experience through Erasmus+ actions can contribute to the acquisition of analytic and synthetic skills in relation to global issues as well as the acquisition of general knowledge that will increase their employability.

The expected impact will determine new decisions and actions:

1. **Increasing levels of achievement and strengthening the social dimension of Higher Education Institutions.**
An increase in the number of graduates, the attraction of a wider part of society to Higher Education, and a reduction in the number of students' dropouts can be expected by:
 - Taking into account prior learning using EQF, mainly at postgraduate level, and enhancing lifelong learning.
 - Working on the social dimension of Higher Education: the under-represented groups, children from unemployed families, immigrants, people with special needs, traditional-cultural-religious factors that influence the studies. Incentives will be applied to low incomes, such as financial support and mentoring.
 - Dropout & legislation: Statistics show 10-15% dropout due to lack of support measures for the unemployed and the poor. A new law should introduce a narrower dropout together with a part-time study equivalent to full-time employment.
2. **Improving the quality and relevance of Higher Education Institutions, among other things, through cooperation between Higher Education Institutions and the labour market**
Improving the quality and relevance of Higher Education Institutions, so that relevant programmes of study meet the needs of individuals, the job market, and the future career, while stimulating and rewarding teaching excellence:
 - Adapted education by incorporating real projects in the programmes of study and the dissertation, in a project-based learning programme. The programmes of study are adapted to the requirements of the industry: joint research on this issue with the Technical Chamber of Greece. Subsequently, attracting specialised staff to teach emerging disciplines.
 - The use of ICTs for new, open academic courses, digital teaching materials and libraries, distance learning.
 - Recognising excellence in academic teaching: establishing a culture of teaching excellence; joint-degree Erasmus programmes could be used as a means.
3. **Enhancing quality through mobility and cross-border cooperation**
NTUA will provide opportunities to students to gain additional skills through studying or training abroad and encourage cross-border cooperation to improve the quality of higher education: The Erasmus Masters programme can be structured into modular programmes, with effective recognition of studies abroad, improved employability and participation of non-European institutions. Cross-links with other universities are expected to confirm and capitalise.
4. **Knowledge Alliances**
It will support Knowledge Alliances that bring businesses and universities together to develop innovation opportunities, joint activities involving new teaching methods, design of new interdisciplinary programmes of study, innovative courses, and entrepreneurship. The graduates' employability will increase. We will involve and train researchers in projects for their future employment in the industry.
5. **Improving governance and funding**
It will ensure that funding is effective, free up university governance, and invest in quality education to meet the needs of the labour market. It will support activities that develop NTUA's strategic capabilities, thus increasing the autonomy and accountability of the institution, while also increasing the capacity to raise funding from diverse sources and effectively manage resources.

The priority areas in which, among others, further reforms need to be made, concern:

- Increasing the number of graduates, attracting a broader cross-section of society into higher education, reducing the number of early student dropouts;

- Improving the quality and importance of higher education, so that the programmes of study meet the needs of students, the labour market, and the careers of the future, as well as stimulating and rewarding excellence in teaching and research;
- Providing more opportunities to students to gain additional skills through studying or training abroad and encouraging cross-border cooperation to boost higher education performance;
- Training more researchers to prepare the ground for the industries of tomorrow, strengthening the links between education, research, and businesses to promote excellence and innovation;
- Ensuring that funding is efficient – increased flexibility in university governance and investment in quality education to meet the needs of the labour market.