A. STUDY REGULATION

Study Regulation (Excerpt from Decision No. 38743/15.1.2026 of the Senate/Assembly of the Aristotle University of Thessaloniki / School)

A. The establishment and operation, as of the academic year 2026-2027, of the **Joint Undergraduate Program of Studies in English (JEUPS)** entitled Bachelor of Science in Clean Energy Science and Engineering of the Schools of (i) Mechanical Engineering of the Faculty of Engineering (accelerated), (ii) Chemistry of the Faculty of Sciences and (iii) Agriculture of the School of Agriculture, Forestry & Natural Environment of the Aristotle University of Thessaloniki, in accordance with the provisions of Law 4957/2022, as in force, as follows:

Article 1

Title, Content and Purpose of the Program

The Schools of (i) Mechanical Engineering of the Faculty of Engineering (accelerating), (ii) Chemistry of the School of Sciences and (iii) Agriculture of the School of Agriculture, Forestry and Natural Environment of the Aristotle University of Thessaloniki, jointly organize and operate an Joint Undergraduate Program of Studies in English (JEUPS) (hereinafter referred to as the JEUPS) of the first cycle on Science and Engineering Studies in Clean Energy (Clean Energy Science and Engineering), which are full four-year studies and culminate in the award of a Bachelor of Science in Clean Energy Science and Engineering.

The subject of the Joint Undergraduate Program of Studies in English (JEUPS) is education in Clean Energy Science and Technology, combining basic and applied knowledge to acquire skills in the design and study of clean energy production and use systems and zero carbon footprint technologies.

The purpose of the Program is to provide interdisciplinary training in the principles, processes and technologies that determine the transition towards clean energy forms. It integrates knowledge from Chemistry, Engineering, and Environmental Sciences, focusing on energy materials, energy conversion and storage systems (solar, electrochemical, bioenergy), as well as the sustainable production and use of hydrogen. The program aims to shape graduates with scientific competence, technical ability and ecological awareness, capable of contributing to the global energy transition.

Learning outcomes and qualifications. With the successful completion of the JEUPS Clean Energy Science and Engineering, students will have acquired:

- Understanding Fundamental concepts of physics, chemistry, mathematics, statistics, technical engineering, and data processing.

- Familiarity with the subjects of energy processes, electrical and mechanical energy devices and computer programming.
- Supervision in the fields of energy technology, electrochemistry, energy materials, biochemical processes and sustainable design, as well as knowledge of writing and presenting a technical report, while through relevant work they will have deepened in relevant technological and scientific subjects of clean energy applications.
- Ability to continue studies in the second cycle of studies, as well as access, under certain conditions, to related professions in Greece and abroad.

The program provides students with the academic prerequisites for the continuation of their studies at postgraduate and then doctoral level and the professional prerequisites for their careers in fields that require documented technological and scientific knowledge, while the degree awarded is equivalent to the degrees awarded by corresponding BSc degrees from foreign universities.

Article 2

Degree

The JEUPS of the Schools of Mechanical Engineering, Chemistry and Agriculture of the Aristotle University of Thessaloniki awards a **Bachelor of Science degree in Clean Energy Science and Engineering**.

The successful completion of studies corresponds to level six (6) of the National and European Qualifications Framework, in accordance with the provisions of article 47 of Law 4763/2020 (Government Gazette A' 254).

Article 3

Number of Admissions – Selection Criteria and Required Supporting Documents

The **annual number of admissions** to the JEUPS Clean Energy Science and Engineering is set **at a maximum of forty (40)** legally eligible undergraduate students, while the minimum number of admitted students for the operation of the JEUPS is set at twenty-two (22) undergraduate students.

Upon the recommendation of the Curriculum Committee and the decision of the Senate, the minimum and maximum number of admissions may be changed in each cycle of the Program.

The **selection** of entrants is made on the basis of the candidates' curriculum vitae after evaluation of the file and supporting documents by the Curriculum Committee and the participation of the candidates in the selection process. This includes an oral interview conducted online by members of the Committee and assesses communication and thought documentation skills, academic and personal readiness, and general understanding of the subjects of the sciences of the Physics, Chemistry, Mathematics and English. By decision of

the Curriculum Committee, which is mentioned in the announcement, a knowledge test may be carried out in English before the interview in the form and on topics that will be determined each time by the said decision.

The individual selection criteria, the required supporting documents and the selection procedure are set out in Article 5 of the Internal Regulation of the JEUPS

Article 4

Program Resources-Tuition Fees

The resources of the JEUPS Clean Energy Science and Engineering may come from:

- tuition fees,
- donations, sponsorships and all kinds of financial support,
- bequests,
- resources from research projects or programmes, in particular those of the European Union,
- own resources of the Aristotle University of Thessaloniki, the amount of which cannot exceed five percent (5%) of the total budget of the JEUPS and
- resources from any other legitimate cause.

A total tuition fee of thirty-two thousand euros (€32,000) is paid for attendance at the JEUPS. The tuition fees that each student is expected to pay amounts to eight thousand euros (€8,000) per year. The payment of the tuition fees is made by the students themselves (or by a third natural or legal person on his/her behalf) in eight (8) equal installments of the four thousand euros (€4,000): The first installment is paid during the student's enrollment process in the Program and the next installments before the start of each semester.

Article 5

Budget of the Programme

The management of the resources of the JEUPS Clean Energy Science and Engineering is carried out by the Curriculum Committee through the Special Account for Research Funds (E.L.K.E.) of the Aristotle University of Thessaloniki and are allocated as a matter of priority to meet the operational needs of the JEUPS and, if there are cash available, these may be allocated to cover other educational and developmental needs of the Schools of Mechanical Engineering of the Faculty of Engineering, the School of Chemistry of the Faculty of Sciences, and the School of Agriculture of the Faculty of Agriculture, Forestry & Natural Environment, in percentages corresponding to the educational load of each School (48.7%, 38.1% and 13.7% respectively for the first cycle of the program for 4 years).

Out of a total of forty (40) admitted students per year, the revenues are analyzed as follows: 40 students ΄ 8 000 € per student, total tuition fees = 320,000 € in the first year of operation of the Program, i.e. 1,280,000 € from the fourth year of operation. and in the perspective of a four-year study cycle, the relevant distribution and analysis of expenses is

as follows: a) Teachers' fees of €56,277 (€256,854 from the fourth year of operation), b) Supply of educational material and books of €10,000 (increased by €5,000 each following year), c) Cost of administrative support of the program €22,000 (with a provision for €44,000 € from the third year onwards), d) € 30,000 for the promotion and communication needs of the program, e) supply of consumables and f) transportation of € 5,000 (up to the amount of € 20,000 during the fourth year of operation) and g) provision of ten percent (10%) of the total for unforeseen expenses.

Finally, for the operation of the program, 100% of the category of scholarships, human resources, infrastructure and digitization is committed to the creation of a cash reserve in the first year and 20% from the second year onwards. The rest of the category from the raising of cash reserves, which amount to more than thirty-eight percent (38%) of revenues already from the second year and are maintained at a correspondingly high level during the fourth year of operation of the Program, the improvement of the infrastructure and equipment of the Schools of Mechanical Engineering, Chemistry and Agriculture, the digitization actions, the strengthening of human resources and the creation of a scholarship program are foreseen: a) to students of the Greek-language Undergraduate Programs of the Collaborating Schools on the basis of financial criteria, b) a program of excellence scholarships for research for graduates of the Greek-language Undergraduate Programs and c) a program of excellence scholarships for students of the JEUPS This program starts from the amount of € 323,446 already from the second year of its operation and may exceed € 600,000 at the end of the four-year period.

Article 6

Duration and Terms of Study

The duration of study at the JEUPS Clean Energy Science and Engineering is defined as eight (8) teaching semesters, full-time. The maximum duration of study is defined as this time, increased by four (4) academic semesters.

The program of each semester course lasts thirteen (13) weeks. The teaching of the courses is carried out in person, utilizing the infrastructure of the Schools of Mechanical Engineering, Chemistry and Agriculture, with the provision of the exceptional use of synchronous distance learning methods.

The rights and obligations of students are described in Articles 6 and 7 of the Internal Regulation of the Program.

Article 7

Official Language of Organization and Curriculum of JEUPS

The official language of the Program is English.

The Joint Undergraduate Program of Studies in English (JEUPS) of Study "Clean Energy Science and Engineering" offers a single study program, full-time, lasting **four (4)**

academic years, which is structured in **eight (8) academic** semesters. The program includes thirty-four (34) courses in total, with twenty-seven (27) compulsory courses and three (3) directions, each of which has three (3) compulsory courses, two (2) elective courses and two (2) compulsory semester assignments.

Compulsory courses (M). The student is required to attend and be successfully examined in twenty-seven (27) compulsory courses, of which he/she will accumulate one hundred and eighty (180) credits (ECTS) during his/her studies. The compulsory courses aim to give the student the fundamental knowledge and methodology of the subjects that traditionally make up the core of Clean Energy Science.

Elective Courses (E). Three (3) specialization directions (Plants Design, Clean Energy Applications, Smart Systems) are offered, of which the student should choose to attend five (5) courses during the seventh (7th) and eighth (8th) semesters of study and prepare two (2) compulsory assignments, related to the elective direction, one in each semester. Out of the five (5) courses, Three (3) are compulsory in the specialization and two (2) are selected from a list of free courses. Upon successful examination in his/her courses and assignments, the student accumulates a total of two hundred and forty (240) ECTS credits during his/her studies. The elective courses (E) aim to introduce the student, of his/her choice, to the logic of more specific subjects.

Attendance of courses is mandatory, while absences exceeding thirty percent (30%) of the teaching hours of each semester are not allowed, unless there are documented reasons of force majeure.

The academic year is structured in two (2) semesters (winter and spring), each of which contains thirteen (13) weeks of teaching, with an examination period at the end of each semester. The successful completion of studies for the award of the degree requires the accumulation of two hundred and forty (240) ECTS credits.

The language of instruction of all courses is English. Interested students have the opportunity to enroll in the School of Modern Greek Language of the Aristotle University of Thessaloniki, in order to learn Greek during the first three (3) years of study.

The program does not provide for compulsory internships.

The detailed curriculum is presented in Article 8 of the Internal Regulation of the Programme.

Internal Regulation of the Joint Undergraduate Program of Studies in English (JEUPS) (JEUPS) entitled Clean Energy Science and Engineering, of the Schools of Mechanical Engineering, Chemistry and Agriculture of the Aristotle University of Thessaloniki

Preamble

The first cycle of studies includes the attendance of an Undergraduate Studies Program (P.P.S.) and is completed with the award of an Undergraduate degree. Successful completion of the program leads to the award of a level six (6) degree, according to the National and European Qualifications Framework, i.e. the basic university degree (Bachelor of Science in Clean Energy Science and Engineering).

This Regulation of Undergraduate Studies is drafted in accordance with the provisions of Chapter G' of Law 4957/2022 (Government Gazette A', 141/21.07.2022) "New Horizons in Higher Education Institutions: Strengthening the quality, functionality and connection of HEIs with society and other provisions"**, which concern the organization and operation of study programs, as well as Chapter K' of the same law, which specifically concerns Foreign Language Undergraduate Study Programs. In addition, it is harmonized with the Regulation of Operation of Undergraduate Study Programs of the Aristotle University of Thessaloniki, ensuring that the regulations herein are in line with the current institutional framework of the institution.**

Article 1
Object, Purpose of the JEUPS

The Schools of (i) Mechanical Engineering of the Faculty of Engineering (accelerating), (ii) Chemistry of the School of Sciences and (iii) Agriculture of the School of Agriculture, Forestry and Natural Environment of the Aristotle University of Thessaloniki, jointly organize and operate an Joint Undergraduate Program of Studies in English (JEUPS) (hereinafter referred to as the JEUPS) of the first cycle on Science and Engineering Studies in Clean Energy (Clean Energy Science and Engineering), which are full four-year studies and culminate in the award of a Bachelor of Science in Clean Energy Science and Engineering.

The subject of the Foreign Language Undergraduate Program is education in Clean Energy Science and Technology, combining basic and applied knowledge to acquire skills in the design and study of clean energy production and use systems and zero carbon footprint technologies.

The purpose of the Program is to provide interdisciplinary training in the principles, processes and technologies that determine the transition towards clean energy forms. It integrates knowledge from Chemistry, Engineering, and Environmental Sciences, focusing on energy materials, energy conversion and storage systems (solar, electrochemical, bioenergy), as well as the sustainable production and use of hydrogen. The program aims to shape graduates with scientific competence, technical ability and ecological awareness, capable of contributing to the global energy transition.

Learning outcomes and qualifications. With the successful completion of the JEUPS Clean Energy Science and Engineering, students will have acquired:

- Understanding Fundamental concepts of physics, chemistry, mathematics, statistics, technical engineering, and data processing.
- Familiarity with the subjects of energy processes, electrical and mechanical energy devices and computer programming.
- Supervision in the fields of energy technology, electrochemistry, energy materials, biochemical processes and sustainable design, as well as knowledge of writing and presenting a technical report, while through relevant work they will have deepened in relevant technological and scientific subjects of clean energy applications.
- Ability to continue studies in the second cycle of studies, as well as access, under certain conditions, to related professions in Greece and abroad.

The program provides students with the academic prerequisites for the continuation of their studies at postgraduate and then doctoral level and the professional prerequisites for their careers in fields that require documented technological and scientific knowledge, while the degree awarded is equivalent to the degrees awarded by corresponding BSc degrees from foreign universities.

Article 2
Awarded Title of JEUPS

The JEUPS of the Schools of Mechanical Engineering, Chemistry and Agriculture of the Aristotle University of Thessaloniki awards a **BSc in Clean Energy Science and Engineering**.

The successful completion of studies corresponds to level six (6) of the National and European Qualifications Framework, in accordance with the provisions of article 47 of Law 4763/2020 (Government Gazette A' 254).

Article 3
Bodies of the JEUPS

The bodies responsible for the organization, administration and operation of the Joint Undergraduate Program of Studies in English (JEUPS) Clean Energy Science and Engineering are the following:

α. The Senate of the Aristotle University of Thessaloniki
β. The Curriculum Committee of the JEUPS Clean Energy Science and Engineering
γ. The Director of JEUPS Clean Energy Science and Engineering
δ. The Assemblies of the three Collaborating Schools, which undertake to organize the JEUPS

More specifically:

1. **The Senate of the Foundation** exercises the following responsibilities:
   α. Approves the establishment of the JEUPS, following the recommendation of the Assemblies of the Collaborating Schools, as well as the amendment of the decision for the establishment of JEUPS, following the recommendation of the Curriculum Committee.

β. Approves the Internal Regulation of the JEUPS, following the recommendation of the Assemblies of the Collaborating Schools, as well as its amendment, following the recommendation of the Study Program Committee.

γ. Establishes the Curriculum Committee of the JEUPS and appoints the Director of the JEUPS, following the recommendation of the Assemblies of the Collaborating Schools.

δ. Approves the abolition of the JEUPS, following the recommendation of the Assemblies of the Collaborating Schools.

ε. Exercises any other responsibility related to issues of academic, administrative, financial and organizational nature of the JEUPS, which are not specifically assigned by the present to other bodies.

2. The Curriculum Committee of the JEUPS Clean Energy Science and Engineering consists of seven (7) members of the Teaching Research Staff (D.E.P.) of the Participating Schools, of which at least two (2) faculty members are of the rank of Professor or Associate Professor. Four (4) members of the committee come from the School of Mechanical Engineering, two (2) members from the School of Chemistry and one (1) member from the School of Agriculture. The Committee has a four-year term of office and is formed by decision of the Senate of the HEI, following the recommendation of the Assemblies of the Participating Schools, each of which is proposed by the members coming from the relevant School. The members of the Commission shall not receive any allowance for the performance of their administrative duties. The Curriculum Committee of the JEUPS exercises the following responsibilities:

α. Proposes to the Senate the amendment of the decision establishing the JEUPS, as well as any other issue related to its operation, for which the Senate is the competent body

β. Distributes the teaching work among the teachers of the JEUPS

γ. Prepares the annual budget of the JEUPS

δ. Approves all expenses for the operation of the JEUPS

ε. Ascertains the successful completion of the studies, in order to be awarded the title of JEUPS

στ. Exercises any other responsibility, which is related to the organization, administration and management of the JEUPS program.

g.The Coordinator may appoint **a Coordinator** of the JEUPS for a period equal to the term of office of the committee. The Coordinator is a faculty member of one of the Collaborating Schools and cooperates closely with the Director of the Program and the Committee, undertaking coordinating and organizational duties under their supervision. The Coordinator exercises, indicatively, the following responsibilities, as assigned by the Curriculum Committee:

g.1. Monitors the smooth day-to-day operation of the Program and ensures the timely implementation of the decisions of the Committee and the Director.

g.2. He is in charge of the organization of the timetable and the communication with the teachers.

g.3. Collaborates with the Secretariat on issues related to the operation of the Program.

g.4. Ensures that students are informed about the curriculum, evaluation procedures, mobility, scholarship opportunities and any other academic or administrative issue.

g.5. In coordination with the Programme Secretariat, it prepares and regularly reports to the Committee and the Director on the operation of the Programme.

g.6. Represents, following a relevant decision of the Committee or the Director, the Program in administrative and/or academic contacts with institutions inside and outside the Aristotle University of Thessaloniki.

g.7. Exercises, upon authorization of the Committee, any other competence assigned to the Director by these Regulations.

3. The Director of the JEUPS is an accelerating professor of the School of Mechanical Engineering appointed by the Curriculum Committee of the JEUPS The Director exercises, indicatively, the following responsibilities:

α. He chairs the Curriculum Committee and convenes its meetings.

β. Proposes to the Curriculum Committee and the other bodies of the HEI issues related to the effective operation of the JEUPS

γ. He is the Scientific Coordinator of the JEUPS, in accordance with article 234 of Law 4957/2022.

Article 4
Categories of Candidates in JEUPS

Foreign candidates are eligible to apply, who are:

(a) Graduates of lyceums or equivalent schools with physical headquarters abroad. Interested parties, if they have attended the last two (2) grades of high school or equivalent school in a foreign country with full attendance, must present a high school diploma or other equivalent secondary education title, which gives them the right to admission to higher education institutions in the country in which they graduate.

b) Graduates of a recognized foreign school of other Member States of the European Union or of third countries, which is legally established and operates in the country, the title of which entitles them to admission to higher education institutions based in the country whose educational curriculum follows the said foreign graduating school, provided that:

(ba) they and their parents do not have Greek citizenship and

(bb) have attended at least the last two (2) grades of Lyceum on a full-time basis.

(c) Students of higher education institutions abroad with a positive direction, who hold the certificate of par. 1 of article 314A of law 4957/2022, in order to continue their studies in a corresponding semester and to be awarded a degree by the JEUPS Clean Energy Science and Engineering.

Foreign schools in Greece must be recognized for their legality of operation by the locally competent Directorate of Secondary Education.

The method of checking the authenticity of the high school diploma and the detailed grade of the candidate can be carried out:

α. with the Hague stamp (APOSTILLE), if the country of origin of the documents is a member of the Convention on the Apostille of the Hague Stamp,

β. with a notarial endorsement (notarial deed),

γ. with validation by the Ministry of Foreign Affairs and/or the Ministry of Education of the issuing country,

δ. by submitting the graduation certificate and/or the detailed grade and at the same time informing the foreign school by the interested party. The information is accompanied by an official email from the foreign school, giving the Program Secretariat the opportunity to check the authenticity of the documents in question.

Proof of English language proficiency

Candidates must demonstrate proficiency in English at least level B2, in accordance with the Common European Framework of Reference (CEFR), in one of the following ways:

α. Mother tongue English.

β. Possession of a language certificate of at least B2 level from a recognized examination body, in accordance with the applicable decisions of the Supreme Council for Civil Personnel Selection (ASEP) or the Ministry of Education on recognized language qualifications.

γ. Degree from the School of Foreign Language and Literature or the School of Foreign Languages, Translation and Interpreting of the country, or an equivalent degree from a recognized institution abroad.

δ. Bachelor's / Master's / Doctoral degree from a recognized foreign university, as long as the program is conducted entirely in English.

ε. A high school leaving certificate, provided that the candidate has attended at least the last two (2) years of secondary education in a school with English as the official language of instruction.

στ. A foreign language teaching proficiency permit does not constitute proof of knowledge of this language, as it requires the presentation of a certified degree on the basis of which the license was issued, as well as an official translation, if required.

Article 5
Number of Admissions, Selection Criteria and Required Supporting Documents

The **annual number of admissions** to the JEUPS Clean Energy Science and Engineering is set **at a maximum of forty (40)** undergraduate students, while the minimum number of admitted students for the operation of the JEUPS is set at twenty-two (22) undergraduate students. By decision of the Study Program Committee, the minimum and maximum number of admissions may be changed in each cycle of the Program.

In case of a tie between the candidates, the candidates who are tied with the last successful candidate, according to their ranking **and until the maximum number (forty) is reached**, are admitted to the JEUPS

The **selection** of admissions is made on the basis of the candidates' CV after evaluation of the file and supporting documents by the Curriculum Committee and the participation of the candidates in the selection process. This includes an oral interview conducted online by members of the Committee and assesses communication and thought documentation skills, academic and personal readiness, general understanding of physics issues, Chemistry and Mathematics. By decision of the Curriculum Committee, which is mentioned in the announcement, a knowledge test may be carried out in English before the interview in the form and on topics that will be determined each time by the said decision.

Applications are submitted electronically throughout the year and until a date to be announced annually during the operation of the program. Candidates are invited to submit their applications accompanied by the necessary supporting documents to the Secretariat of the Program in electronic form. In case the Curriculum Committee decides to conduct a knowledge test in English, the announcement specifies the examination dates as well as the subject areas. The English language proficiency test and interviews are conducted on predetermined dates set by the Curriculum Committee, while the evaluation order follows the chronological order of receipt of applications. The relevant announcement and the corresponding required supporting documents are published at a reasonable time before the completion of the process on the Program's website.

The candidate submits the following **supporting documents**:

- Application for participation in the JEUPS available in electronic form on the Program's website
- Photocopy of two sides **of the Police ID Card** or **Passport**
- **High school diploma** (with official translation into English)
- **Detailed grades** of all subjects of the last year of high school (with official translation into English), where they must show that they have been successfully examined in Mathematics, Physics and Chemistry courses or as respectively described in the relevant certificate (baccalaureate).
- Certificate of English language proficiency at least level **B2**
- **Motivation Letter** of up to five hundred (500) words, which presents the candidate's interest in science, motivation for studying in the program, and future goals

- **A short curriculum** vitae (in English) that includes details of studies, distinctions, volunteering or other activities related to the subject.

The above described criteria for the selection of candidates and supporting documents may be amended following a proposal by the Study Program Committee and approval by the Senate of the Aristotle University of Thessaloniki.

In addition, the following optional academic criteria are positively counted in the evaluation of the candidate's file:

- Minimum overall baccalaureate grade: **seventy percent (70%) of the maximum grade** or equivalent
- Possession of admission tests in higher education, such as:
  - *International Baccalaureate **(IB)**:* ≥23/45,
  - *SAT / ACT*: **SAT**: ≥ 1200/1600 | **ACT**: ≥ 25/36,
  - *TSA (Thinking Skills Assessment):* ≥ 60/100 or raw score ≥ 25/50

For the evaluation and selection of candidates, additional criteria are taken into account, which are defined and may be reformed following the recommendation of the Curriculum Committee and in accordance with the applicable legal framework.

The relevant original documents, if deemed necessary, may be requested by the candidate to be sent by post or submitted in person to the Secretariat of the Program.

The **final selection process of candidates** for the Program is carried out by the Study Program Committee, as follows: The Committee compiles a complete list of all candidates and, after the relevant check, rejects those who do not meet the minimum criteria set by the Law and the Program and invites to an interview the qualified candidates who have collected the required supporting documents. After the completion of the process (evaluation based on the supporting documents, the interview and the knowledge test – if any), the final list of successful candidates is drawn up.

The **final list of successful candidates** and any runners-up is validated by the Study Programme Committee. The selection process, the publication of the results and the registration of the successful candidates must be completed by September 30 of each academic year, subject to the filling of vacancies created by students who voluntarily left the Program by interrupting their studies. from the list of runners-up drawn up by the Curriculum Committee during the evaluation of applications.

In addition to and in addition to the above, students of foreign higher education institutions, who hold a certificate of evaluation of periods of study, which have been completed in a recognized higher education institution abroad (par. 1 of article 314A of law 4957/2022 as amended by article 128 of Law 5094/2024), are offered the opportunity to enroll in the JEUPS Clean Energy Science and Engineering of the Aristotle University of Thessaloniki, in order to continue their studies and be awarded the corresponding degree.

The interested party submits an application with the required supporting documents to the Secretariat of the JEUPS in printed or electronic form, through the Electronic Registration Information System of the Ministry of Education, Religious Affairs and Sports.

Filling vacancies

In case of withdrawal or deletion of a student, the Study Program Committee may, by a specially reasoned decision, replace the vacant position, in order to ensure the smooth operation of the Program by maintaining a stable number of students in each year of study.

The position can be filled by students who are studying in the same or higher semester of studies in internationally recognized higher education institutions of foreign science.

The selection of candidates can be made either by candidates who had applied in the initial submission cycle, or through a separate public call.

Interested parties are invited to provide the following supporting documents:

- Copy of ID card or passport,
- High school diploma (original and official translation into English),
- Grades of all subjects of the last year of high school (original and official translation into English),
- Detailed grades from the School of origin, origin (in the cases of par. 1 of Art. 314A of Law 4957/2022),
- Official Curriculum of the School of origin to check academic correspondence (in the cases of par. 1 of Art. 314A of Law 4957/2022),
- Proof of English language proficiency in accordance with the relevant passage of Article 4 of this Regulation,
- Letter of expression of interest and
- Curriculum vitae.

The Committee evaluates the candidates' files and may invite an interview before the final decision is issued.

Objections to the results may be submitted within five (5) working days from the notification of the results, with a written request to the Secretariat of the JEUPS

The registration of the successful candidates takes place following a relevant announcement by the Secretariat of the JEUPS within fifteen (15) days, with the submission of any necessary supporting documents. In case a candidate does not register within the prescribed deadline by paying the relevant advance payment of the tuition fees, it is considered as a refusal to accept the position, which is covered by the next runner-up.

It is clarified that the applications and the possible acceptance of the candidates concern exclusively the academic year specified in the respective call for applications. There is no provision for provisional admission for subsequent academic semesters or years, regardless of the reason, including, but not limited to, military service or personal obligations. Candidates who wish to study in a later year, must submit a new application in the next cycle and the corresponding invitation.

Exceptionally, the Study Program Committee may, by reasoned decision, approve the postponement of the start of studies for one academic year, if there are serious reasons that are sufficiently documented by the interested candidate. The relevant decision on

whether or not to grant the postponement is left exclusively to the discretion of the Committee.

Article 6
Duration and Terms of Study at the JEUPS

The duration of study at the JEUPS leading to the receipt of the Degree is set at **eight (8) teaching semesters**, full-time.

The program of each semester course lasts thirteen (13) weeks and is developed with lectures, assignments, etc., depending on the requirements of the course and the choice of each instructor.

All courses are held **in person** utilizing the infrastructure of the three Participating Schools. The exceptional use of **synchronous distance learning methods** is provided for the provision of teaching work carried out with the participation of Professors from foreign institutions or Collaborating Professors, in force majeure or extraordinary circumstances, where it is not possible to conduct the educational process in person or to use the infrastructure of the three Collaborating Schools for the conduct of its educational, research and other activities and for the organization of in-depth courses and tutorial exercises, in addition to the mandatory teaching hours per subject. The conduct of distance learning courses is done using ICT, utilizing the material and technical infrastructure of the three Participating Schools, as well as the know-how and support of the Digital Governance Unit (M.D.D.) of the Aristotle University of Thessaloniki.

The minimum duration of study at the JEUPS for the award of the degree is eight (8) academic semesters, while the maximum duration of study is defined as this time, increased by four (4) academic semesters.

After the completion of the maximum duration of twelve (12) semesters, and without prejudice to the provisions in force each time in accordance with the current legislation on HEIs, an act of expulsion of the student is issued by the competent body of the JEUPS

Once the registration has been completed and all the prescribed procedures concerning the formally guaranteed start of studies have been completed, students who have not exceeded the maximum attendance limit of par. 1, may apply for a break from studies for a period not exceeding a total of two (2) academic years. The right to interrupt studies may be exercised once or in parts for a period of at least one (1) academic semester, but the duration of the interruption may not exceed two (2) years cumulatively if it is granted in parts. Student status is suspended during the interruption of studies and participation in any educational process is not allowed. The time of interruption of studies is not counted in the maximum duration of regular study, while upon the resumption of studies, students return to a state of regular study with all the rights and obligations provided for in the Program. The relevant procedure is initiated by a written application of

the interested student to the Secretariat of the JEUPS, accompanied by the necessary, as the case may be, documents and is evaluated by the Study Program Committee.

For serious health reasons attributable to the person of the student or to a person of a first-degree blood relative or spouse or person with whom the student has entered into a cohabitation agreement, the maximum duration of study that does not exceed one (1) year is exceptionally exceeded. This excess is approved by the Curriculum Committee, following a fully justified and adequately documented application of the student, and cannot exceed two (2) consecutive academic semesters.

The JEUPS does not offer part-time study.

For issues of re-examination of courses in due courses or deletion for reasons such as:

(a) the insufficient progress of the student (which is documented by lack of participation in the educational process: attendance, examinations),

(b) the manifestation of behavior that offends academic ethics and

(c) application of the student himself/herself,

the Curriculum Committee decides.

Article 7
Student Rights and Obligations

In the context of the social policy of the Collaborating Schools, in collaboration with the Equal Access Unit of the Aristotle University of Thessaloniki, the full, equal and effective participation of all students with disabilities or special educational needs in all educational, research and administrative activities of the Schools in general and of the JEUPS in particular is ensured.

Access to the teaching and examination areas of the Collaborating Schools is facilitated through appropriate infrastructure, such as ramps, special bars and elevators. For students who, due to disability or learning difficulties, are unable to participate in written exams, it is possible to take an oral examination either in person in an accessible room or remotely through a digital teleconferencing platform.

Students enroll and participate in the JEUPS under the terms and conditions provided for in these Regulations. Students of the program have **all the rights**, benefits and facilities provided for students of the Greek-language study program **except** the right to provide free textbooks. Also, the meals at the University Student Club of the Aristotle University of Thessaloniki are made with the payment of a small fee, as determined by the respective operating regulations of the Club.

Students admitted to the JEUPS **must**:

1. Attend all courses of the Program of Study, regardless of whether they are conducted in person or, exceptionally, remotely, if the latter has been approved by the competent bodies of the Program. Participation in courses, exercises, examinations, public lectures and other

educational activities is mandatory. are entitled to an absence of up to thirty percent (30%) of the total teaching hours of each course per semester. In case of serious and justified impediment, it is possible to make up for the teaching hours, after consultation with the instructor and with the approval of the Curriculum Committee.

2. To submit the required assignments on time, if they are provided for in each course by the teacher in charge.

3. To declare in time the courses of previous years that have not been successfully examined, at the beginning of each semester. The declarations are registered electronically through the electronic secretariat service and are included in the student's individual account. Compulsory declaration is required in the last year for the elective courses.

4. To procure or borrow the necessary textbooks, based on the ones proposed by the person in charge of each course, if this is deemed necessary.

5. To systematically monitor the announcements of the Programme and the Secretariat, regularly checking their e-mails.

6. To issue an academic identity card through the competent electronic service of the Ministry of Education, Religious Affairs and Sports.

7. To pay the tuition fees on time before the winter and summer semesters of each academic year, in accordance with the deadlines set.

8. Have settled any financial or other pending issues to the Program and the Foundation before graduation. Otherwise, they do not have the right to participate in the ceremony of receiving their degree.

9. In the case of a scholarship of a contributory nature, to provide the planned work, which may concern the support of the educational or research operation of the Program, the library or other needs of the School.

10. To respect the decisions of the Program's bodies and to adhere to the rules of academic ethics.

Systematic or serious violation of the obligations arising from these Regulations, without sufficient and documented justification, may result in failure in a course, or, in serious cases, exclusion from educational activities and/or deletion of the student from the Program, following a decision of the Study Program Committee.

The same sanction may be imposed in cases of disciplinary offences, which offend the academic community and the dignity of its members, such as sexist, racist, homophobic or transphobic behaviour, verbal or physical violence, inappropriate behaviour in university premises, as well as any action contrary to the principles of respect, equality and inclusion. Finally, the Committee reserves the right to refer the relevant cases to the competent disciplinary bodies of the Foundation or, if there are reasons, to forward them to the competent authorities of the legal order, in accordance with the applicable legislation.

Article 8
Curriculum - Course Contents - Knowledge Testing

The Joint Undergraduate Program of Studies in English (JEUPS) of Study "Clean Energy Science and Engineering" offers a single study program, full-time, lasting **four (4)** academic years, which is structured in **eight (8) academic** semesters. The program includes thirty-four (34) courses in total, with twenty-seven (27) compulsory courses and three (3) directions, each of which has three (3) compulsory courses, two (2) elective courses and two (2) semester assignments.

Compulsory courses (M). The student is required to attend and be successfully examined in twenty-seven (27) compulsory courses, of which he/she will accumulate one hundred and eighty (180) credits (ECTS) during his/her studies. The compulsory courses aim to give the student the fundamental knowledge and methodology of the subjects that traditionally make up the core of Clean Energy Science.

Elective Courses (E). Three (3) specialization directions (Plants Design, Clean Energy Applications, Smart Systems) are offered, of which the student should choose to attend five (5) courses during the seventh (7th) and eighth (8th) semesters of study and prepare two (2) compulsory assignments, related to the elective direction, one in each semester. Out of the five (5) courses, Three (3) are compulsory in the specialization and two (2) are selected from a list of free courses. Upon successful examination in his/her courses and assignments, the student accumulates a total of two hundred and forty (240) ECTS units during his/her studies. The elective courses (E) aim to introduce the student, at his/her choice, to the logic of more specific subjects.

Teaching takes place in person, with provision for the use of digital support for educational material and communication between students and teachers through the e-learning platform of the Aristotle University of Thessaloniki. Attendance of courses is mandatory, while absences exceeding thirty percent (30%) of the teaching hours of each semester are not allowed, unless there are documented reasons of force majeure.

The academic year is structured in two (2) semesters (winter and spring), each of which contains thirteen (13) weeks of teaching, with an examination period at the end of each semester. Successful completion of studies requires the accumulation of two hundred and forty (240) ECTS credits.

The language of instruction of all courses is English. Students have access to optional courses of Greek terminology, especially during the fourth (4th) year, with the aim of facilitating those who wish to continue their professional career in Greece, as well as courses of special interest.

The program does not provide for compulsory internships, but it offers advisory support and opportunities to participate in research programs of a related subject, especially through targeted semester projects offered in the seventh and eighth semesters.

Curriculum

Course Code	CURRICULUM | Compulsory Courses - Mandatory Courses	Hours/week Hours/week	ECTS
	1st Semester -1st Semester	**18**	**30**
CESE01	Γενική Χημεία - General Chemistry	5	9
CESE02	Λογισμός – Calculus	4	6
CESE03	General Physics for Energy Materials Engineers	4	6
CESE04	Introduction to programming	5	9
	2nd Semester - 2nd Semester	**21**	**30**
CESE05	Τεχνική Μηχανική - Technical Mechanics	4	6
CESE06	Φυσική Χημεία Ενεργειακών Συστημάτων - Physical Chemistry for Energy Systems	5	7
CESE07	Γραμμική Άλγεβρα και εφαρμογές της - Linear Algebra and its Applications	4	6
CESE08	Ενεργειακοί Πόροι - Energy Resources	4	5
CESE09	Στατιστική – Statistics	4	6
	3rd Semester - 3rd Semester	**18**	**30**
CESE10	Ανάλυση και μοντελοποίηση δεδομένων - Data analytics and Modelling	5	8
CESE11	Thermomechanics of Fluids	4	7
CESE12	Επιστήμη και Μηχανική Υλικών - Materials Science and Engineering	5	8
CESE13	Ενεργειακά Συστήματα - Energy Systems	4	7

	4th Semester - 4th Semester	**21**	**30**
CESE14	Μηχανικός Σχεδιασμός και Ανάλυση - Engineering Design and Analysis	4	5
CESE15	Electrochemical Energy Storage Systems - Electrochemical Energy Storage	5	7
CESE16	Υπολογιστικές Μέθοδοι για την Προσομοίωση Ενεργειακών Υλικών - Computational Methods for Simulating Energy Materials	5	7
CESE17	Κυκλώματα και Ηλεκτρονικά - Circuitry and Electronics	5	6
CESE18	Βιομηχανική και Βιοτεχνολογία - Bioengineering and Biotechnology	4	5
	5th Semester - 5th Semester	**23**	**30**
CESE19	Sustainability Engineering and Circular Economy	4	5
CESE20	Ηλεκτρικές Μηχανές - Electrical Machines	5	5
CESE21	Καθαρή Καύση - Clean Combustion	4	6
CESE22	Βιοδιεργασίες για Παραγωγή Καθαρής Ενέργειας - Bioprocessing for Clean Energy Production	5	7
CESE23	Υπολογιστικές Προσεγγίσεις Ηλεκτρονικής Δομής για Υλικά σε Ενεργειακά Συστήματα - Electronic-Structure - Computational Approaches for Materials in Energy Systems	5	7
	6th Semester - 6th Semester	**18**	**30**
CESE24	Επαγγελματισμός μηχανικών - Engineering Professionalism	4	10
CESE25	Renewable Energy Sources - Renewable Energy Technologies	4	6

CESE26	Χημικές και Φυσικές Διεργασίες για την Παραγωγή Καθαρής Ενέργειας - Chemical and Physical Processes for Clean Energy Production	5	6
CESE27	Life Cycle Sustainability Assessment (LCSA)	5	8

Specialization Specialization 1: Design of Industrial Facilities - Module 1: Plant Design

	7th Semester - 7th Semester	**12**	**30**
CESEPD01	Industrial Process Design - Industrial Processes Design	4	6
CESEPD02	Επιχειρησιακή Έρευνα και Βελτιστοποίηση - Operations Research and Optimization	4	6
CESE0XEL	Μαθήματα επιλογής - Elective Course	4	6
CESE28	Technical Work - Senior Project		12
	8th Semester - 8th Semester	**8**	**30**
CESEPD03	Χρηματοοικονομική της Ενέργειας - Energy Finance	4	6
CESE0XEL	Μαθήματα Επιλογής - Elective Course	4	6
CESE29	Thesis - Capstone Project		18

	Specialization Direction 2: Clean Energy Technologies - Module 2: Clean Energy Applications	**12**	**30**
	7th Semester - 7th Semester		
CESECEA01	Heating Devices and Engines - Heat Devices and Engines	4	6
CESECEA02	Έλεγχος Ενεργειακών Συστημάτων - Energy Systems Control	4	6
CESE0XEL	Μαθήματα Επιλογής - Elective Course	4	6
CESE28	Technical Work - Senior Project		12
	8th Semester - 8th Semester	**8**	**30**
CESECEA03	Εφαρμογές στη Γεωργία - Applications in Agriculture	4	6

CESE0XEL	Μαθήματα Επιλογής - Elective Course	4	6
CESE29	Thesis - Capstone Project		18

Specialization Direction 3: Smart Systems - Module 3: Smart Systems **12** **30**

7th Semester - 7th Semester

CESESS01	Διανεμημένη Παραγωγή Ενέργειας - Distributed Energy Production	4	6
CESESS02	Υδρογόνο και Κυψέλες Καυσίμου - Hydrogen and Fuel Cells	4	6
CESE0XEL	Μαθήματα Επιλογής - Elective Course	4	6
CESE28	Technical Work - Senior Project		12

8th Semester - 8th Semester **8** **30**

CESESS03	Έξυπνα Δίκτυα - Smart Grids	4	6
CESE0XEL	Μαθήματα Επιλογής - Elective Course	4	6
CESE29	Thesis - Capstone Project		18

Μαθήματα Επιλογής κατευθύνσεων Εξειδίκευσης - Elective Courses for Modules

7th Semester - 7th Semester

CESE01EL	Ενεργειακά Συστήματα στα Κτίρια - Energy Systems in the Built Environment	4	6
CESE02EL	Ενέργεια και Περιβάλλον - Energy and Environment	4	6
CESE03EL	Στροβιλομηχανές - Turbomachines	4	6

8th Semester - 8th Semester

CESE04EL	Μοντελοποίηση και βελτιστοποίηση ενεργειακών συστημάτων - Modeling and Optimization of Energy Systems	4	6
CESE05EL	Battery Management in Electric Vehicles. - Battery Management in Electric Vehicles	4	6

CESE06EL	Ενέργεια από τη Χημική Ανακύκλωση Πλαστικών Αποβλήτων - Energy from the Chemical Recycling of Waste Plastics	4	6

Course content

A. COMPULSORY COURSES

A. MANDATORY COURSES

[CESE01] – General Chemistry

This course provides a comprehensive introduction to the fundamental principles of general chemistry, forming the scientific foundation for subsequent studies in clean energy science and engineering. The course integrates key concepts from inorganic, physical and organic chemistry, emphasizing the structure-property relationships that govern chemical behaviour in energy-relevant systems. Students are introduced to atomic structure, quantum concepts, periodic trends and chemical bonding, including ionic, covalent and metallic bonding, as well as molecular structure and intermolecular interactions. Basic solid-state concepts are presented, covering crystalline and amorphous materials, bonding in solids and phase transitions. The physical chemistry component introduces states of matter, gas behaviour, phase equilibria, electrolyte solutions and fundamental spectroscopic techniques (IR, Raman, UV–Vis) used for molecular and materials characterization. Introductory organic chemistry topics include structure and bonding, stereochemistry, hydrocarbons, functional groups and aromatic systems, with emphasis on molecular structure and reactivity relevant to materials and energy-related applications. By the end of the course, students will have a solid understanding of the chemical principles underlying materials, reactions and processes that are central to clean energy technologies.

[CESE02] – Calculus

This course provides a concise and structured overview of the fundamental concepts of calculus, emphasizing on conceptual understanding, graphical interpretation and practical problem solving. The following is an outline of the course: Review of functions and graphs. Real functions of a single variable: Exponentials, Cyclic, hyperbolic and their inverses. Introduction of limits and continuity. Differential Calculus: Derivatives, derivatives as rate of change and applications in optimization and motion. Differentials and applications involving linear approximations. Tangent lines. Introduction to sequences and series. Power series. Taylor polynomials and Taylor series. Integral Calculus: Definite and

indefinite integrals. The Fundamental theorem of calculus. Improper integrals. Applications in area, curve length and volume of surfaces of revolution. Multivariable functions. Partial derivatives. The notion of gradient. Directional derivatives. Differentiability. Differentials and linear approximations, tangent planes and normal lines. Local and global extrema. Lagrange multipliers.

[CESE03] – Physics for Energy Materials Engineers

This course provides a comprehensive introduction to the core areas of physics required for further study in Clean Energy Science and Engineering. Beginning with mathematical tools and kinematics, the course develops a solid foundation in classical mechanics, including Newton's laws, force modelling, work and energy, momentum, collisions, rotational dynamics, and oscillatory motion. These topics establish the physical reasoning and problem-solving framework that underpins much of scientific and engineering analysis.

Building on this foundation, the course introduces the principles of electricity through electrostatics, electric fields, electric potential, and capacitors. Students learn how electric circuits operate through the study of current, voltage, resistance, and basic circuit laws. A light introduction to magnetism and electromagnetic induction provides conceptual understanding of magnetic forces, magnetic fields generated by currents, and the qualitative meaning of Faraday's law. While magnetism is not treated in full depth, students gain the necessary insight to understand simple electromagnetic interactions and to prepare for more advanced courses in electromagnetism or energy systems.

Throughout the course, physical concepts are illustrated with examples, problem-solving exercises, and short applications relevant to scientific and engineering contexts. By the end of the semester, students will have developed a coherent understanding of the fundamental laws governing mechanical, electrical, and magnetic systems, forming a strong foundational platform for subsequent studies in energy engineering, materials science, thermodynamics, and modern physics.

[CESE04] – Introduction to programming

This course provides a comprehensive introduction to programming, focusing on Python as a modern, versatile, and open-source language widely used in science and technology. Students are trained to think algorithmically, design structured solutions, and implement them in Python. The course emphasizes clarity, reproducibility, and hands-on practice through interactive coding sessions and computer labs.

The content covers both fundamental programming concepts and their application to scientific problem-solving. Students begin with general knowledge about computers, operating systems, and programming languages, before progressing to Python syntax, data structures, and libraries. They learn how to design algorithms, write efficient code, and apply computational methods to analyze data, visualize results, and simulate scientific systems.

Special attention is given to the use of NumPy, Pandas, and Matplotlib, as well as Jupyter notebooks for interactive workflows. By combining lectures, labs, and projects, the course ensures that students acquire both theoretical understanding and practical skills.

[CESE05] – Technical Mechanics

This course is the foundation of engineering analysis, covering the principles of force systems on bodies. Focus on drawing Free-Body Diagrams, calculating Internal Forces (shear/moment) in structures, and analysing friction. The second part introduces Stress and Strain concepts to understand material deformation, elasticity, and structural integrity. Key topics include: Free Body Diagrams & Equilibrium: Modelling and balancing forces. Internal Forces: Axial/Shear force and bending moment calculations. Stress & Strain: Material response to load. Elasticity: Understanding material deformation and stiffness.

[CESE06] – Physical Chemistry for Energy Systems

This course introduces the essential principles of Physical Chemistry that govern the behaviour of chemical and electrochemical systems used in modern clean-energy technologies. Core topics include the thermodynamic properties of gases, liquids and solids; the First, Second and Third Laws of Thermodynamics; and chemical and phase equilibria in multicomponent systems relevant to energy processes. Students explore the properties of solutions and electrolytes, ionic activity, and introductory electrochemistry, with emphasis on electrochemical potentials and energy conversion. Fundamental concepts of chemical kinetics and catalysis are also covered, focusing on reaction rates, temperature effects and mechanisms central to combustion, electrolysis, hydrogen production and catalytic conversion pathways. Laboratory exercises introduce key experimental techniques for the characterization of physical and chemical behaviour, including calorimetry, conductivity measurements, equilibrium studies and basic electrochemical diagnostics.

[CESE07] – Linear Algebra and its Applications

This course introduces the fundamental principles of linear algebra in n-dimensions and its applications in energy systems. The main topics of the course are as follows:

- Elementary Matrix Theory
- Systems of simultaneous equations – Reduced row echelon form – Numerical implementation
- Linear algebra in n-dimensions – Vector spaces – bases – column and row space – null and range space – representation of lines and planes – Numerical implementation
- Orthogonality and its consequences – Orthogonal and orthonormal bases – projection to spaces – Numerical implementation
- Eigenvalue – eigenvector problem
- Quadratic forms
- Linear regression, simulation and optimization applications in Clean Energy Systems

[CESE08] – Energy Resources

Introduction to Energy Resources: Global energy demand, energy units, EROI, sustainability concepts, Fossil Fuels: Coal, oil, natural gas – reserves, extraction, processes, use, environmental impacts, Nuclear Energy: Fission, fusion prospects, safety, waste management, Hydropower: Large-scale dams, small hydro, pumped storage, Solar Energy: Photovoltaics, solar thermal, CSP, Wind Energy: Wind turbines, onshore, offshore, resource assessment, Biomass & Bioenergy: Thermochemical/Biochemical processes, biofuels, biogas, waste-to-energy, Geothermal Energy: Resource types, technologies, limitations, Marine Energy: Tidal, wave, ocean thermal, Energy Storage: Thermal storage, Electrochemical storage, batteries, hydrogen, P2X technologies, Energy Systems Integration: Smart grids, hybrid systems, Energy Economics & Policy: Cost analysis, subsidies, carbon pricing, Future Outlook & Review: Global energy transition scenarios.

[CESE09] – Statistics

This course introduces the fundamental concepts of probability and statistics used for data analysis and inference. Students learn to summarize and visualize data using descriptive statistics, frequency distributions, and histograms, and to quantify key characteristics such as central tendency and variability. The course covers core probability principles, including random variables, expected values, and major discrete and continuous probability distributions, along with the central limit theorem. Students then explore statistical estimation through sampling distributions, point estimators, confidence intervals, and sample-size determination. Building on these foundations, the course addresses hypothesis testing for parameters and goodness-of-fit, before concluding with an introduction to simple linear regression for modelling relationships in data.

[CESE10] – Data analytics and modelling

This course introduces the basic concepts of data analytics and modelling with the aid of Machine Learning, The course prepares students for careers in energy and environmental consulting, governmental agencies, research institutions, and technology companies focusing on clean energy. Graduates will be equipped to address complex clean energy challenges using data science and informatics approaches. Contents: Introduction to Energy and Environmental Data, Data Cleaning and Descriptive Statistics, Patterns and Trends identification & visualization, Introduction to Regression, Classification Methods, Time Series Forecasting, Pattern Recognition - Clustering and PCA, Neural Networks Introduction, Comparing Methods and Model Selection, Basics in information service design, Project Work Session: Apply learned methods to a chosen topic - Options: energy forecasting, consumption analysis, environmental prediction

[CESE11] – Thermofluids

This course presents a holistic approach in the main principles of energy technology.

In particular, the main principles of Thermodynamics, Fluid Mechanics and Heat Transfer are presented in this course.

1. Thermodynamics

The first principles of Thermodynamics including the First and Second Law of Thermodynamics are presented. The application of the related technologies are introduced using the worked out examples.

2. Fluid Mechanics

The first principles of Fluid Mechanics are introduced in this course. The conservation of mass, energy and momentum are presented in 0D, namely the Continuity Equation, the Bernoulli Equation and the Force-Momentum Equation.

3. Heat Transfer

The first principles of Heat Transfer are introduced in this course. The main concepts of heat transfer by convection, conduction and radiation are presented.

[CESE12] – Materials Science and Engineering

What is Materials Science and Engineering: the materials paradigm and design trade-offs.
Materials classes and typical applications; introduction to microstructure.
Atomic bonding, crystal structures, and amorphous solids.
Crystal defects: vacancies, dislocations, grain boundaries; diffusion basics.
Phase diagrams: phases, lever rule, eutectic; intro to phase transformations.
Mechanical behavior: elastic/plastic deformation, strengthening mechanisms, fracture basics.
Functional properties overview: electrical, thermal, magnetic, optical; corrosion basics.
Introduction to processing routes: casting, deformation processing, heat treatment, polymer processing, sintering, additive manufacturing (overview).
Intro to materials selection concepts and sustainability considerations.

[CESE13] – Energy Systems

This course presents a holistic approach in the development of mathematical models for the simulation of energy systems. The outline of the course is as follows:

Thermodynamic Properties and phase equilibrium
Material and Energy Balances – Basic Principles
Unit operations – Modeling
Separation, reaction processes
Heat exchangers
Heat exchangers networks – pinch analysis
Pumps, Compressors and Expanders
Steam systems and evaporators
Principles of energy systems simulation
Simulation of energy process systems (ASPEN Plus)
Optimization of energy process systems (GAMS)

[CESE14] – Engineering Design and Analysis

This course focuses on integrating design principles with practical engineering examples. Students learn systematic methodologies (e.g. approaches for safety and durability) for the design process, emphasizing problem definition, concept generation, and optimization. The course applies these principles directly to energy conversion systems, for example piping

systems and pressure vessels, wind turbines, solar panels etc. Key topics include understanding system components, performance evaluation, material selection, and economic and sustainability considerations in the context of advanced engineering projects.

Key topics:

- Systematic Design Methodology: Applying structured phases (e.g., conceptual design, embodiment design, detail design) to solve complex engineering problems.
- Analysis of Energy Conversion Systems: Detailed study of how systems (like heat engines, turbines, or photovoltaic arrays) transform one form of energy into another, focusing on efficiency and performance.
- Sustainable Engineering Principles: Incorporating environmental impact, life-cycle assessment, and material selection to ensure designs are effective
- Optimization and Modelling: Using analytical and computational tools to refine design parameters and achieve maximum performance or cost-effectiveness.

[CESE15] – Electrochemical Energy Storage

This course introduces the principles and technologies of electrochemical energy storage, focusing on rechargeable batteries, electrochemical supercapacitors and introductory fuel cell concepts. Students explore electrode reactions, ion transport, electrolyte properties and the role of interfaces in determining device performance and degradation. Major rechargeable battery chemistries are discussed, including lithium-ion, sodium-ion, flow batteries, metal-air systems, and emerging solid-state architectures. The course also examines electrochemical supercapacitors, covering electric double-layer and pseudocapacitive mechanisms, materials selection and power-energy trade-offs. Fuel cells are presented at an introductory level, emphasizing their operating principles, efficiency, and their broader role within integrated clean-energy systems. **Laboratory demonstrations** emphasize hands-on characterization of electrochemical devices, including charge-discharge cycling of battery cells, measurement of specific capacity and Coulombic efficiency, open-circuit voltage analysis, and basic electrochemical diagnostics such as cyclic voltammetry. By the end of the course, students will understand the scientific foundations, performance metrics, and challenges of electrochemical devices used in modern sustainable energy applications.

[CESE16] – Computational Methods for Simulating Energy Materials

This course trains students in the computational design and simulation of energy materials, focusing on practical workflows and applications rather than abstract theory. Students learn how to set up atomistic models, prepare input files, and run simulations using free/open-source software such as LAMMPS and ASE. A strong emphasis is placed on Python programming, both for automating simulation tasks and for post-processing and analyzing results.

Through lectures and laboratory exercises, students gain hands-on experience in Molecular Dynamics (MD) and Monte Carlo (MC) methods, applying them to real energy challenges. Case studies include:

- Hydrogen and methane uptake in nanoporous materials (e.g. Metal Organic Frameworks – MOFs) for clean energy storage.
- Phase stability in alloy systems relevant to batteries.
- Thermal conductivity at the nanoscale for thermoelectric materials.

By the end of the course, students will be able to **design, simulate, and analyze energy materials** using modern computational tools, bridging the gap between engineering practice and scientific insight.

[CESE17] – Circuitry and Electronics

The course begins with the fundamental principles of electric circuit analysis, establishing the necessary background for understanding complex energy systems. Students will master DC and AC circuit theory, including Ohm's Law, Kirchhoff's laws (KCL/KVL), nodal and mesh analysis, and network theorems such as Thevenin and Norton equivalencies. Special emphasis is placed on AC power analysis, impedance, phasors, and the concept of Power Factor, which is critical for efficient energy transmission and grid stability.

Subsequently, the course introduces semiconductor physics and the operation of non-linear electronic devices. This includes the study of PN junctions and diodes, focusing on their application in rectification (AC to DC conversion) and voltage regulation. Students will also examine Bipolar Junction Transistors (BJTs) and Field Effect Transistors (MOSFETs), specifically analyzing their behaviour as electronic switches—a concept that forms the foundation of modern power management systems.

The curriculum then transitions to analogue signal processing and operational amplifiers (Op-Amps). Students will learn to design and analyse inverting and non-inverting amplifiers, integrators, and differentiators. This section highlights the application of Op-Amps in sensor interfacing and signal conditioning, which are essential for monitoring performance metrics in renewable energy technologies.

[CESE18] – Bioengineering and biotechnology

The course Bioengineering and Biotechnology introduces the principles of cell structure and function, covering prokaryotic and eukaryotic cells, membranes, organelles, and their roles in biological and industrial systems. It examines macromolecules, including the structure and function of proteins, nucleic acids, carbohydrates, and lipids, with relevance to bioprocesses. Cell metabolism is addressed through metabolic pathways, energy production, catabolism, anabolism, and metabolic regulation in engineered systems. Enzyme topics include structure, catalytic mechanisms, kinetics, inhibition, and industrial applications. Cell growth concepts encompass microbial and cell culture growth phases, kinetic models, nutrient requirements, and environmental influences. The course covers genetics, DNA structure, replication, transcription, translation, genetic organization, and regulation of gene expression. Molecular techniques such as PCR, DNA sequencing, sequence analysis, and real-time PCR are discussed for qualitative and quantitative applications. Applications include microbial biotechnology for strain engineering and fermentation, plant biotechnology for tissue culture and crop improvement, animal biotechnology for cell culture and biopharmaceuticals with ethical considerations, aquatic biotechnology for aquaculture and environmental monitoring, bioremediation for pollutant

degradation, and waste biotechnology for biological treatment and sustainable resource recovery.

[CESE19] – Sustainability Engineering and Circular Economy

This course provides an interdisciplinary introduction to the principles of the circular economy and environmental economics. Students will explore how economic systems impact the environment, how circular strategies can reduce waste and resource use, and what policy and business models support sustainability transitions. After analysing the basic background in the aforementioned concepts, the principles of Sustainable Development Goals (SDGs) of United Nations and the ESG (Environmental, Social, and Governance) criteria, students will have the opportunity to delve into indicative legislative milestones with an emphasis on the CSRD Directive -Corporate Sustainability Reporting Directive for sustainability reports, as well as the SEVESO Directive. Particular emphasis is placed on the management of critical/specific waste streams and by-products to support circular economy business models. The course also includes the demonstration of sustainability management tools, emphasizing on Life Cycle Assessment (LCA). The aim to highlight case studies of sustainable production and services design. Case studies are expected to be examined for a better understanding of the theory and preparation of students on issues related to the promotion of green technologies and environmental responsibility strategies for businesses. The course combines economic theory, policy analysis, calculation of economic indicators and real-world case studies to build practical understanding for the circular economy model approach.

[CESE20] – Electrical machines

The course begins with the introduction to machinery principles, i.e. production of a magnetic field in the electrical machines, magnetic circuits, core losses (hysteresis and eddy current losses), Faraday's law, electromagnetic and magnetomotive forces, force and torque production.

Transformers, i.e. theory and operation of the single and three-phase transformers, construction, equivalent circuit, phasor diagram, transformer power losses and efficiency, voltage and current relationships, three-phase transformer connections, ratings and autotransformer.

DC machinery fundamentals and DC motors and generators, i.e. construction, production of voltage and torque, equivalent circuit, analysis of dc motors and generators, connections, speed and voltage control, speed and torque characteristics.

Three phase and single-phase induction motors and generators, i.e. construction. voltage and torque relationships, equivalent circuit, speed and torque characteristics, speed control, theory and operation of single-phase induction motors.

Synchronous generators, i.e. construction, equivalent circuit, phasor diagrams, power and torque characteristics, operation of synchronous generators in parallel with the grid, transient operation.

Permanent magnet motor drives, i.e. theory of permanent magnets, construction, speed and position control of motor and generator drives, close loop control system, power converters, topologies.

[CESE21] – Clean Combustion

Chemical thermodynamics: Mass conservation and mixture stoichiometry, lambda value and equivalence ratio, energy conservation in chemical reactions, Gibbs free energy, chemical equilibrium, combustion temperature, equilibrium products. Chemical kinetics: Elementary reactions, propagation and branching, reaction rate, reaction rate constant, partial equilibrium and steady state approximations, reversible reactions, chain reactions, explosion limits, some important combustion mechanisms, pollutant formation kinetics, chemical time scales. Combustion Reactors: constant volume, constant pressure, well-stirred reactor, plug-flow reactor, dimensioning, stability, power considerations. Structure of laminar flame, theory of Mallard, flame thickness, flame speed. Conventional fuels and alternative fuels, including combustion of biofuels, biomethane, larger hydrocarbons, H_2, NH_3 and bio-alcohols. Main fuel properties of interest. Greenhouse gas and air pollutants formation and principles of pollution control (catalytic, non-catalytic, filtering, precipitators, scrubbers).

[CESE22] – Bioprocessing for Clean Energy Production

The course Bioprocessing for Clean Energy Production introduces global energy demands, sustainability challenges, and the transition to renewable systems, highlighting the role of bioprocessing in carbon neutrality, resource circularity, and integration with waste-management infrastructures. It covers biomass feedstocks such as agricultural residues and algae, along with physical, chemical, and biological pretreatment technologies. Core engineering principles include bioreactor design and operation for batch, fed-batch, and continuous systems, emphasizing mass transfer, agitation, and sensor integration. Fundamentals of anaerobic digestion are explored through anaerobic microbiology, methanogenesis, biomethanation, reactor types, and waste-to-energy concepts, followed by process optimization using ADM1, kinetic models, physicochemical dynamics, digester design, and scale-up. The course examines AI and machine learning tools for digester optimization, predictive control, and methane-yield enhancement. Emerging CO_2-to-CH_4 technologies, biohydrogen production, microbial fuel cells, and bioelectrochemical systems are discussed alongside liquid biofuels such as bioethanol, biobutanol, and biodiesel. Integrated biorefineries, waste-to-bioproduct systems, future innovations in synthetic biology, and course projects conclude the curriculum.

[CESE23] – Electronic-Structure Computational Approaches for Materials in Energy Systems

This course introduces students to computational techniques for analysing the electronic structure, chemical behaviour, and spectroscopic properties of molecules, solids, and interfaces relevant to modern energy systems. Emphasis is placed on practical electronic-structure approaches that reveal how bonding, charge distribution, electronic levels, and optical characteristics influence the functionality of materials used in batteries, catalysts, photovoltaics, and other clean energy technologies. Students learn to construct and evaluate molecular and materials models, perform molecular structure optimizations, interpret vibrational and optical spectra, and assess electronic descriptors connected to reactivity

and performance. Hands-on laboratory sessions use the WebMO platform on the university's HPC system, allowing students to run semiempirical and first-principles electronic-structure calculations through an accessible web interface. The course introduces cluster-based representations of solids and surfaces, and guides students in interpreting electronic features such as HOMO–LUMO gaps, localized electronic states, adsorption behaviour, and charge redistribution. Through a final mini-project, students design and communicate a focused electronic-structure analysis of an energy-relevant system. The course equips students with applied computational literacy, interpretive skills, and the conceptual vocabulary needed to understand and articulate electronic-level processes in materials used across energy engineering.

[CESE24] – Engineering professionalism

The course introduces students to the ethical, communicative, and professional standards expected in modern engineering practice. The course explores codes of conduct from engineering associations, emphasizing how regulations, standards, and ethical frameworks guide responsible decision-making. Students examine accountability in contemporary engineering contexts, including the appropriate use of AI tools, ownership of technical work, proper attribution, and managing one's professional reputation. A strong focus is placed on professional communication: structuring and writing technical reports, preparing effective presentations, and using digital tools to support clear, persuasive oral communication. Students are also introduced to scientific and conference publication practices, including research methods, referencing conventions, and dissemination approaches. The course supports students' professional development through guidance on CV preparation, understanding employment expectations, and planning for lifelong learning. Throughout the semester, students collect, analyze, and synthesize data to produce a technical report and present their findings in a formal oral presentation.

[CESE25] – Renewable Energy Technologies

This course examines the energy problem and renewable energy sources. The following renewable energy systems are examined: SOLAR ENERGY Thermal solar systems, photovoltaic systems, and concentrated solar power systems. Design and sizing of solar thermal systems for domestic hot water production and building heating. Design and sizing of photovoltaic systems. WIND ENERGY Types of wind turbines and wind generators. Basic characteristics and properties. Methods and technologies of utilization. Estimation of the energy output of an individual wind turbine. GEOTHERMAL ENERGY High-, medium-, and low-enthalpy applications for power generation and thermal uses. Basic characteristics and properties. Methods and technologies of utilization. HYDROELECTRIC ENERGY Water turbines. Hydroelectric power plants. Pumped-storage power stations. Basic characteristics and properties. Methods and technologies of utilization. OCEAN ENERGY Tidal and wave power plants for electricity generation. Basic characteristics and properties. Methods and technologies of utilization. ENERGY STORAGE Thermal, electrochemical, and mechanical energy storage systems. HEAT PUMPS Dimensioning, operation characteristics, correlation with the outdoor environment, efficiency.

[CESE26] – Chemical and Physical Processes for Clean Energy Production

Introduction to reaction kinetics. Principles of chemical processes, types of chemical reactors, design equations, simple and multiple reactions, combination of reactors, nonisothermal reactors, catalytic reactions & reactors. Part II, Physical processes relevant to clean energy, basic principles and techniques: membrane-based methods (microfiltration, ultrafiltration), equilibrium-based processes (distillation, liquid-liquid extraction), and affinity-based separations (adsorption, ion exchange). Part III, Applications of Chemical and Physical processes to production of clean energy: renewable biofuels, including biodiesel from microalgae, bioethanol, biogas, and hydrogen. Introduction to the biorefinery concept, highlighting integrated processes that convert biomass into fuels, chemicals, and value-added products for a circular, low-carbon energy future.

[CESE27] – Life Cycle Sustainability Assessment (LCSA)

The course introduces the basic knowledge of Environmental Impact Assessment (EIA) and the respective compliance with environmental conditions within the framework of sustainable resources' management and relevant environmental legislation. The key points of Environmental Impact Studies and the relevant application of environmental legislation to projects and activities are analyzed. After analyzing the basic background and knowledge, the key points of Environmental Management Systems (EMS) and the monitoring of relevant environmental performance (mainly ISO 14001 and 50001 for energy issues) are analyzed. Students of this class will have the opportunity to delve into issues related to the management of construction site pollutants, waste and environmental risks with the ultimate aim of preserving the natural environment and minimizing social impacts. The course also focuses on the interactions between Energy and Environment by highlighting case studies from construction sites, environmental incidents in projects and techniques for optimal energy utilization and monitoring of environmental performance.

[CESEPD01] – Industrial Processes Design

The course introduces students to the application of feasibility studies in energy production industrial processes. It is based on a thorough feasibility study of a selected industrial plant, which varies each year, and the preparation of a detailed report that constitutes an important part of the overall course grade. The course covers the development and interpretation of methodological flow diagrams and the application of mass and energy balances for process analysis. Students learn the preliminary sizing and selection of key process equipment, as well as methods for estimation of project profitability. To support this, the course includes an extensive lab component where students use specialized software tools for industrial plant design. The course also addresses throughput analysis, identification of bottlenecks, and strategies for process optimization. Additionally, students explore the optimization of operating conditions using operational criteria and the principles of process scale-up. Finally, the course examines the determination and evaluation of quality parameters in outlet streams to ensure compliance with quality standards and sustainable operation.

[CESEPD02] – Operations Research and Optimization

This course provides a comprehensive introduction to optimization and mathematical programming, covering the formulation of models through the definition of variables,

objective functions, parameters, and constraints. Students will explore linear programming in depth, including its theoretical foundations, graphical solution techniques, the Simplex method, duality theory, and sensitivity analysis. The course also examines classical algorithms such as transportation, assignment, and transshipment methods, along with hands-on experience in solving linear programming problems using computer software. Further topics include integer programming and non-linear programming, with attention to classical solution methods for constrained and unconstrained models, including the Karush–Kuhn–Tucker (KKT) conditions and practical applications. The course concludes with multi-objective linear programming, goal programming, and broader decision-making methodologies.

[CESECEA01] – Heat devices and engines

By accomplishing this course, students will be able to understand energy balance and ways in which is its applied. They will have obtained an insight into the fundamentals of issues addressed by the energy and manufacturing

Introduction to heating systems and equipment: principles and systems of heating. Thermal load calculation. Boilers, heating elements, heat pumps dimensioning and operation. Piping calculations and design of the heating network.

Introduction to Internal Combustion Engines: IC engine classification, engine components and terminology, engine maps. Sizing and use of IC engines in conventional and hybrid propulsion systems.

Introduction to Turbomachinery, typical layouts. relative motion of blading, efficiency and degree of reaction. phase changes in turbomachinery, cavitation.

Engines: Introduction. Gas Cycles (Otto, Diesel, Miller). Combustion Thermodynamics. Fuel-air cycles. Calculation of engine cycles and gas composition. Measurement Techniques. Analysis of indicator diagrams. Friction and lubrication. Fluid Mechanics in 4-stroke and 2-stroke engines. Turbocharging and supercharging. Fuel injection systems. Heat Transfer and Engine Cooling. Combustion in Otto and Diesel engines. Calculation of combustion rate. Pollutant formation and after-treatment technology. Fuels and lubricants. Operating maps.

[CESECEA02] – Energy systems control

This course provides a comprehensive analysis of the dynamic response and the design of control systems for energy systems. The course outline is as follows:

- Principles of Feedback Control – Elements of control
- Analysis of dynamic behavior (Stability, dynamic response)
- Single feedback control loop design (PID, controller tuning, cascade, feedforward, time delay systems)
- Multi-loop feedback control system design (interaction, decoupling)
- Frequency response control system design methods
- State-space model representation, state feedback control system design

[CESESS01] – Distributed energy production

Introduction (Traditional Power Systems, Definition and evolution of distributed generation (DG), Centralized vs decentralized energy, Microgrids and prosumer models, DER classification: generation, storage, demand response)

Solar Photovoltaic (PV) Systems (PV cell physics, Current–voltage characteristics, temperature effects, Maximum power point tracking (MPPT), Inverters: grid-tied, hybrid, microinverters, AC/DC coupling, Grid integration: voltage rise, unbalance, harmonic issues, Standards: IEEE 1547, UL 1741, anti-islanding)

Wind Energy Systems (Turbine types and power curves, Generator systems: induction generators, DFIGs, synchronous generators, PMSGs, Power electronics for wind, Electrical behavior under variable wind, Grid integration challenges: reactive power, flicker, fault ride-through, Hybrid wind + storage systems)

Small Hydro & Other Distributed Renewables (Run-of-river hydro and micro-hydro electrical systems, Turbine-generator selection and control, Bioenergy systems: CHP, biogas generators, electrical interconnection, Emerging technologies (tidal stream, wave converters, airborne wind, etc.)

Power Electronics for Distributed Energy (Inverter topologies and modulation techniques, Harmonic generation and filtering, Anti-islanding and protection schemes, Grid-forming vs grid-following inverters)

Electrical Interconnection of DG Systems (Single-line diagrams, system topology, DG impact on distribution feeders, Voltage regulation and control strategies, Reactive power management (Volt-VAR, Volt-Watt control), Protection issues: bi-directional power flow, fault current contribution, Islanding, microgrid operation modes (grid-connected vs islanded)

System Modeling, Simulation, and Tools (Load and generation profiles, Time-series modeling of intermittency, Power flow studies (MATLAB, PSSE, DIgSILENT, OpenDSS), Sizing of PV-battery systems, Optimization of DER placement)

Microgrids & Smart Grid Integration (Microgrid architectures (AC, DC, hybrid), Control hierarchy: primary, secondary, tertiary, Resilience and black-start capability, Demand response and intelligent loads)

Economics, Policy & Project Development (Cost analysis (CAPEX, OPEX, LCOE), Incentives, feed-in tariffs, net metering, Regulatory frameworks for distributed generation, Project sizing, siting, feasibility studies, Reliability assessment and risk management, Environmental impact and sustainability metrics)

[CESESS02] – Hydrogen and Fuel Cells

This course provides a comprehensive introduction to hydrogen as an energy carrier and to fuel cell technologies for clean power generation. Students explore the fundamental properties of hydrogen, its production routes (electrolysis, reforming, thermochemical and biological processes), storage methods and safety considerations. The course examines the operating principles, thermodynamics and performance characteristics of key fuel cell types, including PEM, solid oxide and high-temperature proton-conducting systems. Attention is given to electrode reactions, ion and gas transport, water and heat management, catalysts, and degradation mechanisms. The role of hydrogen and fuel cells in energy

systems integration, mobility, industrial decarbonization and grid balancing is analyzed using real-world case studies. Laboratory demonstrations introduce basic diagnostic tools, such as polarization curves, efficiency measurements and impedance-based performance assessment. By the end of the course, students will understand the scientific and engineering foundations that enable hydrogen and fuel cell technologies to contribute to a sustainable energy future.

[CESE28] – Senior project

A full semester technical report in one of the fields of study.

[CESEPD03] – Energy Finance

By accomplishing this course, students will be able to understand how financial principles operate within the energy sector and how energy commodities are produced, traded, priced, and financed across global and regional markets. The course introduces the functioning of the Energy Exchange, including spot and futures markets, trading mechanisms, and the role of market participants such as producers, utilities, traders, and financial institutions. Students will gain insight into energy trading strategies, price discovery, volatility, and the use of financial instruments to manage risk. The content also explores investment decision-making in conventional and renewable energy projects, the impact of regulation and energy policy on financial performance, and the growing importance of sustainability and carbon markets. Emphasis is placed on linking market dynamics with financial analysis to support informed decisions in energy investment, trading, and risk management.

[CESECEA03] – Applications in Agriculture

The course Applications in Agriculture explores renewable energy and bioenergy technologies for sustainable agricultural systems, beginning with fundamentals of solar energy, including radiation capture, insolation, thermal-mass utilization, optimal orientation, and contributions to farm sustainability. It covers passive solar heating and cooling through greenhouse and barn design, solar chimneys, natural ventilation, heat storage, and low-cost performance improvements, alongside solar thermal systems such as flat-plate and evacuated-tube collectors for water heating, livestock facilities, crop drying, and postharvest operations. Solar-powered agricultural technologies including photovoltaic irrigation, pumping, electric fencing, remote sensing, monitoring, precision agriculture, and off-grid solutions are examined. Geothermal energy principles are introduced, covering resource classification, soil thermal properties, and agricultural suitability, followed by shallow geothermal geoexchange systems, ground-source heat pumps, loop configurations, and seasonal storage. Direct geothermal applications for greenhouses, aquaculture, processing, crop drying, and climate control are discussed. The course also addresses agricultural biomass resources, pretreatment and pelleting processes, anaerobic digester design, and best practices for biogas systems, including stability enhancement, digestate valorisation, upgrading, safety, and farm-scale energy integration.

[CESESS03] – Smart grids

The course begins with the introduction to smart grid, evolution of electric grid, definitions and equipment needs, functions and opportunities, challenges and benefits. Difference between conventional and smart grid.

Analysis of smart grid technologies, i.e. smart energy resources, substations and automation, transmission systems: EMS, FACTS, HVDC, protection and control, energy management, distribution systems: Volt/Var management, fault detection, auxiliary services, phase shifting transformers and electric vehicles.

Smart meters and advanced metering infrastructure. Power quality management. and EMC. Grid connected renewable energy sources. Power quality conditioners and monitoring. Power quality audit.

Computing for smart grid applications. Local/house area network. IP protocols. Cloud computing and cyber security for smart grids. Broadband over Power Lines (BPL)

[CESE29] – Capstone project

A full semester technical report, including original work and research in one of the fields of study.

B. ELECTIVE COURSES

[CESE01EL] – Energy Systems in the Built Environment

This course examines how buildings can transition toward sustainable, low-carbon futures through renewable energy systems (mainly solar technologies) focused on urban environment application covering heating- cooling needs on terms of thermal comfort. Energy systems,, planning and dimensioning in regards to, energy efficiency, health and well being of users and climate-resilient infrastructure is also a key issue of the course. Students will explore the interplay between urbanization, energy demand and consumption, automations (BACS - Building Automation Control Systems), smart systems, cost effectiveness and environmental impacts (oriented to carbon footprint). The course integrates sustainability science, urban policy, and engineering approaches to equip students with analytical and practical tools for energy efficient urban development, buildings certification (LEED and BREEAM) providing a holistic approach to the design of urban planning in compliance to energy and climate policy.

[CESE02EL] – Energy and Environment

The course introduces students to the scientific principles that govern the interaction between the energy systems and the environment, providing a foundation for understanding the environmental challenges and opportunities of the clean-energy transition. It examines how different forms of energy production, conversion, and use—including oil, coal, natural gas, nuclear energy, biomass, geothermal, hydroelectric, wind, solar, and other renewable sources—affect climate change, air quality, natural resources,

and ecosystems. Students study the environmental impacts of fossil fuels and emerging clean-energy technologies, focusing on greenhouse gas emissions, pollutant formation, carbon and nutrient cycles, and ecosystem interactions. The course explores lifecycle assessment, environmental footprint analysis, and sustainability metrics to evaluate energy technologies and systems. Attention is given to both local and global environmental consequences of energy choices, as well as the trade-offs involved in adopting different energy pathways. Through case studies, quantitative analysis, and applied examples, students develop the skills to assess the environmental performance of energy systems and to propose strategies for low-carbon, resource-efficient, and ecologically responsible energy solutions. The course emphasizes the critical role of science-based decision-making in guiding the transition toward sustainable and clean energy future.

[CESE03EL] – Turbomachines

Introduction to turbomachinery, general principles, typical configurations. The turbomachinery and the operation system. Typical characteristics of turbomachines, similarity laws, cooperation of several turbomachines, operation in series or in parallel. The fluid mechanics and thermodynamics of turbomachines, thermodynamic cycles of gas and steam turbines. The relative flow, velocity triangles, Euler's equation. Aerodynamics of turbomachinery, basic principles of operation, non-dimensional numbers, efficiencies, reaction. Axial compressors: design, operation, limiting factors. Blade aerodynamics for axial compressors operating both in sub- and super-sonic regions. Flow phenomena, 3D effects, tip leakage flows. Radial turbomachinery: Description, velocity triangles, design and operation problems. Axial turbines: Blade design and construction characteristics, 3-D flows. Blade cooling methodology and construction problems. Pumps: Study of the phase change of water under extremely low pressures, cavitation. Operational characteristics analysis of 3-D flow effects, multistage pumps, technical and operational problems. Radial turbines. Theory of design and operation, study of the flow in radial turbine rotors. Water turbines: Fluid mechanics of Pelton, Francis and Caplan turbines. Design and construction, operational characteristics cavitation.

[CESE04EL] – Modeling and Optimization of Energy Systems

The course introduces students to state-of-the-art topics for the modeling and optimization of energy systems, including modelling of hybrid feedstock energy systems, energy supply chain networks, polygeneration systems, combined heat and power systems, energy markets and energy planning.

In the first half of the semester computer-aided techniques for Energy Systems Modeling and Optimization will be introduced including: energy and material balances, introduction of variables for technology description and energy flows, definition of operating and design constraints. Tools and framework such as Linear, Mixed-Integer Linear and Non-Linear modeling and Optimization will be described with emphasis on the Modeling with 0-1 variables for technology selection in energy-related plants and flowsheets. Definition of objectives functions such as economic or environmental-related. Efficient Modeling of complex logic-based decisions and constraints. Illustrative examples considering multi-energy systems. Emphasis will be placed on formulating an optimization model which includes the following steps:

- Understanding complexity and implications of the model choice
- Brief overview of solution methods
- Solving optimization problems of a computer
- Interpreting solutions of optimization models

In the second half Multi-echelon energy and production supply chains will be described and quantified. This include definition of nodes/echelons, introduction of storage, modeling of transportation means, selection of warehouses and distribution centers. Moreover, mModeling and Optimization of long-term energy planning will be studied including introduction of energy generation technologies (conventional and renewable energy-based), constraints, energy demands, availability of energy resources, modeling of environmental and energy policies. Development of an integrated Mixed-Integer Linear Programming Model (MILP). Finally, Fundamentals of energy markets modeling and Optimization will be described.

[CESE05EL] – Battery management in Electrical Vehicles

The course begins with a comprehensive overview of Electric Vehicle (EV) subsystems and powertrain configurations. Students explore the specific requirements for traction batteries compared to stationary storage, delving into the modeling of Lithium-Ion cells. This foundation allows for a detailed study of equivalent circuit models (ECM) used to predict battery behavior under the intense, dynamic current profiles typical of automotive drive cycles.

A significant portion of the course is dedicated to the hardware and software design of Battery Management Systems (BMS). Students examine the critical safety functions of a BMS, including over-current, over-voltage, and over-temperature protection. The curriculum covers topology design for cell monitoring and the various passive and active cell balancing techniques required to maximize the usable capacity and lifespan of a battery pack.

Moving into algorithmic controls, students learn the mathematics behind "State Estimation." This involves applying techniques such as Coulomb Counting and Extended Kalman Filters (EKF) to accurately estimate the State of Charge (SOC) and State of Health (SOH) in real-time. The course also addresses the thermal management of battery packs, discussing air, liquid, and phase-change cooling systems essential for maintaining optimal operating temperatures.

Finally, the course addresses the integration of EVs with the external energy ecosystem. Topics include on-board and off-board charging topologies, communication protocols (such as CAN bus and ISO 15118), and the emerging role of EVs in grid stability through Vehicle-to-Grid (V2G) technologies. Students conclude with a review of second-life battery applications and recycling challenges, trying back to the clean energy circular economy.

[CESE06EL] – Energy from the Chemical Recycling of Waste Plastics

This course examines the principles and technologies of polymer waste recycling, with emphasis on energy recovery and the production of fuels and value-added chemicals within

a circular economy framework. Students are introduced to the fundamentals of polymers and plastics, global production and waste trends, polymerization mechanisms and the physical and chemical properties of major commodity polymers such as polyethylene, polypropylene, PET, PVC and polystyrene. The course covers polymer waste streams and sorting technologies, followed by a detailed analysis of recycling strategies, distinguishing mechanical and chemical recycling approaches. A major focus is placed on thermo-chemical recycling technologies, including pyrolysis and gasification, with discussion of reaction pathways, product distributions, syngas and hydrogen-rich streams, and fuel-quality upgrading through catalysis. Fundamental aspects of polymer degradation kinetics and thermodynamics, as well as basic reactor concepts, are introduced. Environmental and life-cycle considerations are addressed, including greenhouse gas emissions, hazardous components, microplastics, regulatory challenges and feedstock quality requirements. Laboratory demonstrations include polymer identification, thermal analysis and bench-scale pyrolysis experiments, complemented by product characterization. Through a mini-project, students apply techno-economic and sustainability concepts to real-world plastic-to-energy scenarios.

Teaching - Knowledge testing - Student evaluation

The JEUPS is taught with the physical presence of teachers and students in the classrooms. By decision of the Curriculum Committee, a weekly zone of online education may be established, common to all students of the JEUPS, which will be used to conduct tutorial and/or seminar courses and, exceptionally, to make up for courses in cases where they are not available for the This purpose classrooms on other days of the week. In exceptional cases of dealing with extraordinary circumstances that prevent face-to-face teaching, deliveries may, by a specially reasoned decision of the Chairs of the Participating Schools and the Director of the Program, be carried out online for a finite period of time, which is necessary in order to deal with the extraordinary circumstances that justify the transition to distance learning in the short term.

Similarly, examinations are conducted in the physical presence of students and examiners in the classrooms of the Schools, whether they are conducted in writing or orally. Exceptionally, only oral examinations can be conducted remotely, provided that the identification of the examinees is ensured and the best practices for conducting oral examinations via the internet are followed, in order to ensure their integrity. distance learning examinations are not allowed, except in the cases and under the conditions mandatorily provided for by the applicable legislation. By decision of the Curriculum Committee, written examinations using tablets, laptops or PCs are allowed if they are carried out with the physical presence and supervision of the examinees in the halls of the Schools, under the guarantees of a comprehensive plan for the conduct of these examinations, which will ensure their integrity and the equal treatment of the examinees.

Attendance at courses, tutorials and any other organized educational activity of the Foreign Language Undergraduate Study Program is mandatory. Students may be absent up to thirty percent (30%) of the total teaching hours of each course per semester, while

deviations from this limit are allowed only in exceptional cases, with the approval of the Curriculum Committee. lectures, tutoring and examinations are considered an essential element of academics for the successful course of students in the Program.

Before the beginning of each semester, the Secretariat of the JEUPS prepares and publishes the detailed teaching schedule of the semester, taking care that, as far as possible, the compulsory and elective courses (a) are equally distributed over all days of the week, (b) there is no long time gap between the courses during the same day on which they happen to be taught and (c) do not coincide with the teaching of other Y or E courses of the same semester of study.

Upon completion of the tenth (10th) teaching week of each semester, students are invited to participate in an anonymous electronic evaluation of the courses taught to them, as well as of the teachers, in order to improve their level of study.

Student evaluation

1. The students of the JEUPS They are evaluated by written or oral examinations, which are held at the end of the semester for the courses taught in the same semester and by taking into account any other work or intermediate examination and grading, as defined in the description issue of each course. All subjects are examined during the repeat examination period in September. The student's participation in an oral examination excludes his/her participation in the written examinations of the same course during the same examination period.

2. Lecturers take special care for the oral examination of students with proven dyslexia or with severe mobility problems or with visual impairments that significantly hinder their participation in written examinations, in accordance with a procedure set out in the applicable provisions.

3. The Secretariat of the Program publishes in a timely manner the detailed schedule of the written examinations for the upcoming examination period. Under the responsibility of the teachers, assisted by the Secretariat of the JEUPS, a sufficient number of invigilators are ensured by PhD candidates and postgraduate students. Teachers must be constantly present at the examination sites, exercise supervision for their smooth and impartial conduct and take the measures necessary for these purposes.

4. Each examinee must check, before appearing for the specific examination, the inclusion of his/her name in the computerized list of the Secretariat for the beneficiaries of participation in the examination of the specific course. Examinees are prohibited from copying or falsifying in any other way the result of the examination process, as well as from presenting books, aids, notes that are not provided or electronic means of communication to the examination rooms. Any attempt to use electronic means of communication during the examination process is a particularly aggravating case against the examinee. Furthermore, examinees are

prohibited from using a separate sheet as a draft. For this purpose, they are allowed to use the last page of their writing. In case of violation of these conditions, it is necessary to nullify the script as a measure of internal order to ensure the integrity of the examination process, without prejudice to any other sanction that may be imposed in accordance with the provisions in force.

5. The designated invigilators must check the academic identity that proves the student status and certifies the identity of the examinee, verify the inscription of the student's name and special registration number on his/her paper, initialize each paper, supervise the examinees so that they do not copy or talk to each other, to constantly supervise the entrances and exits of the room, especially at the end of the examination time and delivery of the papers, and to ensure that no examinee leaves or leaves the examination room before thirty minutes (30') have elapsed from the distribution of the subjects.

6. The written examination of each course lasts a maximum of two (2) hours for all courses.

7. After the papers are delivered, the invigilators count the papers they have received and one of them certifies the number of papers received. The papers are then handed over to the teacher, who counts them and confirms with his signature before the invigilator the number of papers received.

8. Instructors must submit to the Secretariat of the Program the results of the final examinations, written and/or oral, uniformly in the same grade for each subject, no later than twenty-five (25) days from the day of each examination. In the case of oral examinations, the instructor is not allowed to announce the result of the examination to the examined students, but only in aggregate for all those examined, written and/or oral, at the end.

9. In all courses of the JEUPS, the result of the student's knowledge test is expressed numerically with grades from zero (0) to ten (10). In the grading lists, failure is marked with grades from zero (0) to four (4) and success with grades from five (5) to ten (10).

10. It is not allowed to publish examination results in any way with the names of the examinees visible, except by quoting their special register number (AEM).

11. It is not allowed to transfer a student's grade from one examination period to the next. Clauses that may be written in the examinees' script and concern their desire to be cut if they are evaluated with a grade lower than the desired one, or references to how many courses one owes to get a degree, are not allowed and if they are, they are not taken into account.

12. The answers to the questions of the written exams, practical and theoretical, are discussed after the publication of the results by the teachers with the interested students at specially designated times, and the examinees have the right to see their script - of the current examination period - and ask for explanations on the way in which it was evaluated.

Teachers have the obligation to post on their e-learning the proposed solutions of the subjects they put in the exams.

13. For the calculation of the degree grade and the composition of the courses indicated therein, the twenty-seven (27) compulsory courses necessary for the accumulation of one hundred and eighty (180) ECTS credits from Compulsory (Y) courses, the five (5) Elective (E) courses and the two (2) assignments required for the accumulation of sixty (60) ECTS credits are counted. i.e. two hundred and forty (240) ECTS credits in total.

Article 9
Scholarships

In the context of the Joint Undergraduate Program of Studies in English (JEUPS) of Study in Clean Energy Science and Engineering of the Aristotle University of Thessaloniki, it is possible to grant scholarships to students, based on academic and objective criteria and following a decision of the Curriculum Committee. Indicatively:

- It is possible to grant up to three (3) scholarships per academic year to students who stand out during the selection process, based on the overall evaluation of their qualifications (including the results of the oral interview), and were ranked among the first entrants of the cycle. These scholarships consist of a complete exemption from the payment of tuition fees for the first academic year.
- An excellence scholarship with exemption from the payment of fifty percent (50%) of the following academic year's tuition fees may be awarded to the student who obtains the highest average performance score in all courses of each year, provided that he/she has successfully completed all courses within the prescribed time. In case of a tie, the scholarship may be awarded to more than one student.
- The Curriculum Committee may award excellence awards to students who demonstrate outstanding performance during their studies. The awards may be accompanied by an honorary distinction or a cash prize. In particular, at the end of each academic year, a first-year prize may be awarded year, based on overall performance in all subjects and consistency in attendance. Similarly, an excellent graduate award may be awarded to the student with the highest academic performance during the course of study.
- A full or partial exemption from the payment of tuition fees may be provided, following a reasoned decision of the Study Programme Committee, for students coming from war zones or under international or subsidiary protection, based on documented social and humanitarian criteria.
- In exceptional cases, a scholarship of a social nature may be granted to candidates or students of the Program who are facing serious financial difficulties, health issues, loss of a parent, or live under a state of emergency or long-term crisis, after examination of the relevant application and the accompanying supporting documents by the Study Program Committee.
- It is also possible to grant reciprocal scholarships, which consist of exemption from the payment of part of the tuition fees, with the obligation of the student to offer a specific project in support of the Program. This work may include

library subscription, support of administrative functions, assistance in research projects or other activity to be determined by the Curriculum Committee, in consultation with the Secretariat and the faculty members. The duration and content of the contributory scholarship are clearly defined when it is awarded, while non-compliance with the obligations may lead to its revocation.

The awarding of the above-mentioned scholarships and/or excellence awards, the specific terms of granting, the obligations and rights of the scholars are determined by decision of the Study Program Committee and are at its sole discretion on the basis of the financial capabilities of the Program and its cash reserves.

Article 10
Teaching Staff of the JEUPS

The teaching work of the Joint Undergraduate Program of Studies in English (JEUPS) (JEUPS) is allocated by decision of the Curriculum Committee to teachers with a subject related to the subject of the teaching work assigned to them. By decision of the Curriculum Committee, the teaching of the courses of the Program for the next academic year is assigned to the teaching staff who will be available during it. In particular, the following may be employed as teaching staff of the JEUPS:

α. members of the Teaching and Research Staff (D.E.P.), of the Collaborating Schools or other Schools of the Aristotle University of Thessaloniki or of another Higher Education Institution (HEI) with additional employment beyond their legal obligations as defined in article 155 of Law 4957/2022,

β. Emeritus Professors or retired faculty members of the Collaborating Schools or other Schools of the Aristotle University of Thessaloniki or other HEI,

γ. members of Special Educational Staff (E.E.P.), Laboratory Teaching Staff (E.DI.P.) and Special Technical Laboratory Staff (E.T.E.P.) of HEIs, who hold a doctoral degree and have teaching experience, as well as sufficient scientific, writing or research activity,

δ. adjunct lecturers,

ε. visiting professors and visiting researchers,

στ. contract researchers,

ζ. researchers and special functional scientists of the research centers of article 13A of Law 4310/2014 (A' 258) or other research organizations in Greece and abroad, who hold a doctoral degree and have teaching experience and sufficient scientific, writing or research activity,

η. Postdoctoral students and young scientists, holders of at least a doctoral degree, who have specialized knowledge or relevant experience in the subject of the JEUPS,

θ. collaborating professors.

The assignment of the teaching work of the JEUPS is carried out by decision of the Curriculum Committee, following the recommendation of the Director, who cooperates for this purpose with the Presidents of the Collaborating Schools. The decision of the

Curriculum Committee ensures that the teaching and the educational activities in general assigned to faculty members in the context of the JEUPS do not affect in any way their other educational, research and administrative obligations towards the School and the Greek-language Undergraduate Program. The decision of the Curriculum Committee on the assignment of teaching work is issued no later than the beginning of each academic semester and must include its lecturers JEUPS, the courses, the educational activities and the total teaching hours assigned per lecturer according to the curriculum per academic semester, as well as the total cost of their remuneration, provided that the payment of a fee is provided for and is communicated without delay to the Special Account for Research Funds (E.L.K.E.) of the Aristotle University of Thessaloniki. All categories of teaching staff are remunerated exclusively from the resources of the JEUPS, provided that their remuneration is provided. The amount of remuneration per category of teaching staff is determined following a decision of the Curriculum Committee and in accordance with the rules governing the E.L.K.E. A.U.TH. regarding the contracts for the remuneration of the Institution's staff, external collaborators, the exercise of additional teaching work and the total teaching hours assigned on a case-by-case basis.

The obligations of the lecturers include, among others, the description of the course or lectures, the way the course is examined, as well as the communication with the students necessary for the academic purposes of the program.

Teachers are obliged to follow the weekly teaching schedule in accordance with the timetable, as drawn up and determined by the Committee, and to follow the examination and evaluation conditions as described in this Regulation.

Article 11
JEUPS Revenue - Tuition Fees - Financial Management Process

The resources of the JEUPS may come from:

α. tuition fees,

β. donations, sponsorships and all kinds of financial support,

γ. bequests,

δ. resources from research projects or programmes, in particular those of the European Union,

ε. own resources of the Aristotle University of Thessaloniki, the amount of which cannot exceed five percent (5%) of the total budget of the JEUPS and

στ. any other legitimate reason.

Tuition fees

For the study of the JEUPS, a total tuition fee of thirty-two thousand (€32,000) is paid, which is divided into eight thousand euros (€8,000) per academic year. The amount of the tuition fees is determined and modified by decision of the Senate of the Aristotle

University of Thessaloniki, while the method and time of payment may be adjusted by decision of the Study Program Committee.

The payment of tuition fees is made by the students themselves (or by a third natural or legal person on their behalf) in a bank account held by the E.L.K.E. A.U.TH., in eight (8) equal installments of four thousand euros (€4,000): The first installment during the student's registration process in the Program and the following ones before the start of each semester. After the payment of the tuition fees, the corresponding document is issued and the student is informed electronically.

Payment is made electronically, according to the instructions sent with the confirmation of receipt of the application. The amount is deposited at the E.L.K.E. A.U.TH. and is not refunded in case of non-acceptance or withdrawal of the application.

In case of acceptance of the place in the Program, candidates are required to pay the amount of one thousand euros (€1000) as an advance payment of tuition fees. This amount is also paid to E.L.K.E. A.U.TH. and **is not** refundable in case of resignation from studies.

Financial Management Process

The management of the resources of the JEUPS under the supervision of the School of Mechanical Engineering in collaboration with the School of Chemistry and the School of Agriculture is carried out by the Curriculum Committee through the Special Account for Research Funds (E.L.K.E.) of the Aristotle University of Thessaloniki and is allocated as a priority to meet the operational needs of the JEUPS and, if there are cash reserves, these may be allocated to cover other educational and developmental needs of the School of Mechanical Engineering of the Faculty of Engineering, the School of Chemistry of the Faculty of Sciences, and the School of Agriculture of the Faculty of Agriculture, Forestry & Natural Environment, at rates of 48.7%, 38.1% and 13.7%, respectively.By decision of the Board of Directors, following the recommendation of the Research Committee of the E.L.K.E., the percentage of withholding in favor of the E.L.K.E. of the Aristotle University of Thessaloniki is determined.

The operating expenses of the JEUPS also include the remuneration of the teachers and visiting professors. The amount of the remuneration per category of teaching staff is determined by the Curriculum Committee, in accordance with the Remuneration Regulation of the E.L.K.E. A.U.TH. and up to the maximum allowed limit per teaching hour. The Committee may decide on the staggered differentiation of the fees, depending on the number of admitted students per academic year.

Furthermore, the operating expenses of the Program also include the travel expenses carried out for the needs of organization and operation of the JEUPS and approved by its Study Program Committee. Travel expenses are borne by the budget of the JEUPS and are paid to the movers after the presentation of the relevant documents, in accordance with article 248 of Law 4957/2022 and the subsequent relevant amendments.

The resources of the JEUPS are distributed as follows:

α. an amount corresponding to ten percent (10%) of the total income derived from tuition fees is withheld by the E.L.K.E. for the financial management of the Program. By decision of the Board of Directors, it is decided whether the remaining amount, if it arises after the deduction of the withholding in favor of E.L.K.E., is transferred to the regular budget or is allocated for the creation of projects/programs through the E.L.K.E. A.U.TH. in order to cover, as a matter of priority, the needs of the Greek-language Undergraduate Programs of the Schools of Mechanical Engineering. Chemistry and Agriculture, which operate without tuition fees, as well as the coverage of research, educational and operational needs of the Aristotle University of Thessaloniki. b) to d) of Article 11, the withholding in favor of E.L.K.E. is carried out for the revenues from corresponding sources of financing,

β. the remaining amount of the total revenues of the JEUPS is allocated to cover the operating expenses of the JEUPS

Article 12
Administrative Support - Logistical Infrastructure

The Foreign Student Support Unit is responsible for the support of foreign students of the JEUPS, based on article 212 of Law 4957/2022. The mission of the Foreign Student Support Unit is to support foreign students enrolled in first, second and third cycle study programs of the HEI. Students are:

α. The support of foreign students for their enrollment in foreign language study programs of the Aristotle University of Thessaloniki.

β. To support foreign students in the issuance of an entry visa and a residence permit in the country for study purposes and to communicate with the competent public bodies on these issues

γ. To support the process of concluding contracts for the accelerated granting of residence permits for study purposes, in accordance with article 37 of Law 4251/2014 (A' 80)

δ. To support students during their settlement in the country

ε. The cooperation with the co-competent services of the Aristotle University of Thessaloniki for the service of foreign students.

στ. The care for the organization of courses for the learning of the Greek language or other foreign languages in collaboration with the competent units of the Aristotle University of Thessaloniki.

ζ. The exercise of any other competence specified in the Organization of the HEI and related to the subject of the Foreign Student Support Unit.

Administrative Support of the Program.

The Schools of Mechanical Engineering, Chemistry and Agriculture of the Aristotle University of Thessaloniki, having long experience in the organization and implementation of first, second and third cycle study programs, undertake the overall administrative and technical support of this JEUPS. The secretarial support is provided by the Secretariat of the JEUPS, which may be staffed by staff of the Secretariat of the three participating Schools being a key operational arm of its administration and operates under the supervision of the Curriculum Committee.

More specifically, the Secretariat of the Program:

α. Administratively supports the Committee and the Director of the JEUPS

β. Handles the issues of the educational life cycle of students, from enrollment to graduation and the issuance of their degree

γ. Adheres to the protocol, the printed and digital file of the Program

δ. Handles the administrative procedures concerning the teaching staff of the Program (contracts, transfers, etc.)

ε. cooperates with the Special Account for Research Funds of the Aristotle University of Thessaloniki for the financial management of the Program and the support of the relevant procedures.

The **Coordination of the Secretariat** of the JEUPS, as well as the observance of the minutes of the Program Committee, may be undertaken by an executive of the Secretariat of the Greek-Language Undergraduate Program of the School of Mechanical Engineering, or by another executive who has the formal qualifications for the exercise of the duties of Head, in accordance with article 1 of Law 3839/2010. The relevant assignment is made by decision of the Committee of the JEUPS

In this context, in order to support the needs of the Program, the following may be employed, in accordance with article 104 of Law 4957/2022:

α. Members of the regular administrative staff of the Aristotle University of Thessaloniki, with additional employment in addition to their legal obligations, following a decision of the Research Committee of the E.L.K.E., following the recommendation of the Committee of the JEUPS

β. additional staff, which is selected in accordance with the procedure of article 243 of Law 4957/2022.

The cost of the remuneration of all categories of staff is borne exclusively by the budget of the Programme.

The technical support of the program's operation is centrally ensured by specialized staff of the Digital Government Unit of the Aristotle University of Thessaloniki, the existing technical staff of the General Directorate of Technical Services and Computer Organization of the Aristotle University of Thessaloniki and the technical staff of the Collaborating Schools.

For the implementation of the teaching of the courses of the JEUPS, the existing building and logistical infrastructure of the Schools of Mechanical Engineering, Chemistry and Agriculture of the Aristotle University of Thessaloniki is used.

Article 13
Type of Degree Awarded

The Degree of the JEUPS is a public document and is awarded to the graduates of the Program.

The degree is issued by the Secretariat of the Program. The Schools of Mechanical Engineering, Chemistry and Agriculture and the Institution, the emblem of the Aristotle University of Thessaloniki, the date of completion of the studies, the date of issuance of the degree, the graduation protocol number, the title of the JEUPS, the grade of the degree, the student's details and the evaluation characterization are indicated: Good, very good, excellent.

The graduate may be granted, before the award, a certificate of successful attendance and completion of the Program.

In addition to the Degree, a Diploma Supplement is also granted, in accordance with article 15 of Law 3374/2005 and Ministerial Decision Φ5/89656/Β3/13-8-2007 (Government Gazette 1466/Β'). The Diploma Supplement is an explanatory document, which provides detailed information on the nature, level, content, educational context and legal status of successfully completed studies. It is not a substitute for the official degree or the transcript of grades issued by the Institution.

Article 14
Certification - Evaluation of JEUPS

Following the issuance of the decision for the establishment of the JEUPS and before the commencement of its operation, the certification of the JEUPS by the National Authority for Higher Education (H.A.A.E.) is required, in accordance with par. c) of par. 1 of article 8 of Law 4653/2020 (A' 12). After their establishment, the JEUPS are periodically certified, in accordance with sub. bb) of par. b) of par. 1 of article 8 of Law 4653/2020, in the context of the evaluation of the academic unit in which they belong.

The JEUPS is evaluated in the context of the periodic evaluation/accreditation of the academic unit by the National Authority for Higher Education. In particular, the overall evaluation of the work carried out in the JEUPS, the degree of fulfillment of the objectives set at the time of its establishment, its sustainability, the absorption of graduates into the labor market, the degree of its contribution to research, its internal evaluation by the graduates, the feasibility of extending its operation, as well as other data related to the quality of the work produced and its contribution to the national strategy for higher education are evaluated.

If the JEUPS during its evaluation stage is judged not to meet the conditions for its continued operation, its operation is completed with the graduation of the already enrolled students in accordance with the decision of its establishment.

Internal Evaluation of the Quality Assurance Unit

In order to ensure and improve the quality of the JEUPS, the Quality Assurance Unit of the Aristotle University of Thessaloniki (MODIP-A.U.Th.) carries out a periodic internal evaluation of the JEUPS within the framework of the Institution's Internal Quality Assurance System and in accordance with the instructions and directions of the A.H.A.E.

The obligations of the administrative bodies and the teachers of the program also include all the procedures provided, based on the respective instructions and directions of the Quality Assurance Unit – Aristotle University of Thessaloniki. for the internal and external evaluation and accreditation of Study Programs and Academic Units.

Evaluation of teachers and courses by students

With the sole purpose of improving the level of studies of the JEUPS and with absolute assurance of their anonymity, students are invited to evaluate the courses and the teachers of each semester.

For reasons of uniform keeping of statistical data and the possibility of extracting conclusions that can be used for the educational work of the Faculties, Schools and the Institution as a whole, the evaluation questionnaires are compiled by the MODIP. and can be partially differentiated, based on the specific characteristics and needs of each academic unit and/or each course. They are completed electronically.

The evaluation is carried out under the responsibility of the Internal Evaluation Team (O.M.E.A.) of the JEUPS which consists of four (4) faculty members of the School of Mechanical Engineering, two (2) faculty members of the School of Chemistry and one (1) faculty member of the School of Agriculture in collaboration with the Quality Management Unit of the Aristotle University of Thessaloniki, and is carried out through the latter's Quality Management Information System. The Administration and the O.M.E.A. of the School must take systematic actions to ensure that the participation of students in the evaluation, in accordance with the guidelines of the Quality Assurance Unit and the relevant decisions of the Senate.

The O.M.E.A. of the JEUPS monitors, through the Quality Management Information System of the Quality Management Unit, the degree of participation of students in the evaluation process, analyzes the relevant results and informs the administrative bodies of the JEUPS and the respective academic unit about them. The evaluation questionnaires concern the respective course taught and the respective teacher separately.

The governing bodies of the JEUPS and the academic unit, in collaboration with the corresponding O.M.E.A. of the JEUPS, must study the results of the evaluation, announce their conclusions, decide to publish the summary results of the evaluation, when deemed

necessary and in any case after the announcement of the grades of the semester courses, in accordance with the applicable Legislation on the protection of Personal Data, and take actions to address any problems or improvement of the JEUPS

Article 15
Study Guide of JEUPS

The JEUPS publishes a Study Guide in English in order to inform students about its operation. It is published on the Program's website and is updated at regular intervals. The Study Guide includes:

1. General Information as well as useful electronic information about the Institution and the School, in particular about administrative services or collective bodies that the undergraduate student can turn to for the successful completion of his/her studies.

2. The purpose, the subject of the JEUPS as well as the qualifications acquired after the award of the degree.

3. The academic calendar, which includes the start and end dates of academic semesters, examination periods, holidays and any other obligations such as seminars, conferences, etc.

4. The course schedule, credits, terms of study, teaching staff, rights and obligations of students.

5. The official language of instruction.

6. The Curriculum Committee of the JEUPS

7. Databases and other services.

8. Use of the Library, depending on the needs of the courses of the JEUPS

9. Learning outcomes and qualifications, after graduation.

10. Services of the Institution to students.

Article 16
Transitional arrangements

Any issue that arises during the operation of the JEUPS, which is not covered by the relevant legislation or the present Regulation, is dealt with by decisions of the Program's governing bodies, by amending the relevant Regulation.

B. PRACTICAL TRAINING REGULATION

The “Clean Energy Science and Engineering Programme” **does not provide** internships, but advisory support and opportunities to participate in research programs of a related subject are offered, especially through targeted semester projects offered in the seventh and eighth semesters.

In the event that this possibility is used in the future, the internship will be carried out *in accordance with the regulations and practices provided for in the Internship Regulation* of the School of Mechanical Engineering of the Aristotle University of Thessaloniki (accelerated) and the Institution - Internship Regulation of the Aristotle University of Thessaloniki as published in the Government Gazette 5597-B_9.10.2024, in accordance with:

Regulation for the any Internship / TRAINEESHIP (Decision of the General Assembly *20/20.12.2025* of the Mechanical Engineering School of the of the Aristotle University of Thessaloniki)

Internship / TRAINEESHIP REGULATION

The Assembly of the School of Mechanical Engineering of the Faculty of Engineering of the Aristotle University of Thessaloniki,

at the Meeting No. 20/20.02.2026

having in regard the

decision of the Senate No. 38743/15.1.2026 on the Approval of the Establishment and Internal Regulation of the Joint Undergraduate Program of Studies in English (JEUPS) (BSC.CESE) entitled "Bachelor of Science in Clean Energy Science and Engineering" of the Schools of Mechanical Engineering of the Faculty of Engineering (accelerated), Chemistry of the School of Sciences and Agriculture of the School of Agriculture, Forestry and Natural Environment of the Aristotle University (AUTH)

Decides

As an Accelerating School in the Joint Undergraduate Program of Studies in English (JEUPS) of Study Clean Energy Science and Engineering

that the Regulation for any Internship / TRAINEESHIP of the BSC.CESE, if included in the Studies Curriculum, will accept and follow the following:

The internship will be carried out in accordance with the regulations and practices provided for in the Internship Regulation of the School of Mechanical Engineering (accelerating School), which was approved at the General Assembly of the Department No. 4/4.10.2024: is as follows:

ARISTOTLE UNIVERSITY OF THESSALONIKI

SCHOOL OF MECHANICAL ENGINEERING REGULATION OF INTERNSHIP

Assembly no. 4/4.10.2024

Contents

A. STUDENT BENEFITS FROM THEIR PARTICIPATION

- First contact with the professional field and acquisition of the necessary extroversion.
- Familiarity with market trends and the skills required.
- Application of the knowledge acquired at the University on the field of work they are interested in.
- Acquaintance with the various subjects of the professional field, so that they can choose the one that offers them the most benefits on a professional and personal level.

B. DEPARTMENT INTERNSHIP

The Internship in the Department can be carried out through the course with codes K397, K398, K399 and the title "Internship".

1. PRACTICE THROUGH THE COURSE WITH CODES K397, K398, K399 AND TITLE "INTERNSHIP"

Key facts

The course with codes K397, K398, K399 (depending on the major) and entitled "Internship" is an elective course in the Curriculum of the School of Mechanical Engineering of the Aristotle University of Thessaloniki. It corresponds to 12 ECTS and is part of the 7th semester of the study program. The course of the Internship is listed in the diploma supplement and is in the form of

"successfully/unsuccessfully". The above elements were determined by decisions of the Department Assembly: no. 1/6.10.2015, 21/11.7.2018 and 10/14.4.2020.

The Internship lasts three (3) calendar months and is set at 35-40 hours/week (depending on the working hours of the Host Institution's supervisor). It has been set as full-term in accordance with current legislation.

It is possible to extend the duration of the Internship to 6 months with compensation from the Host Institution.

The Internship takes place in specific periods set by the Department and more specifically usually in the months of November-January, March-May, July-September. The months may change, for reasons of force majeure. In any case, the Internship

Office of the Aristotle University of Thessaloniki announces the Internship periods on its website in September of each academic year.

A student may carry out an Internship in a period outside the specified period, following an application to the Internship Committee. In this case, there must be funding from the Host Institution and the rules of Paragraph 3.8C of the Internship Regulation of the Aristotle University of Thessaloniki must be followed, based on the provisions of Law 5128/2024 (article 44) & Law 4957/2022 (article 208).

The Internship may be carried out in public services, Legal Entities of Public Law (N.P.D.D.), Local Government Organizations (O.T.A.) of the first and second degree, Legal Entities of Private Law (N.P.I.D.) and businesses, hereinafter referred to as "Host Institutions", under the guidance of a Supervisor of the Host Institution and the supervision of a teacher of the Study Program.

The Internship may also be carried out in Foreign Host Institutions, if it is possible to supervise the educational process.

The Internship takes place exclusively in the premises of installation or provision of services of the Host Institution in which the student trainee is present. In case he/she moves outside the above areas in the context of his/her Internship, the travel and any accommodation expenses are borne by the Host Organization.

The Internship Officer of the course is a member of the Faculty, E.DI.P., E.E.P. or E.T.E.P. who has been appointed by decision of the Assembly.

In addition to the Traineeship Officer, a three-member Internship Committee and a three-member Appeals Committee have been appointed by decision of the Assembly.

The Internship Committee appoints an Internship Supervisor per student intern.

Who can participate in the course?

Students of the School, who are at least in the 7th semester of study, can participate, provided that they meet the following academic progress requirements that must be met in order to conduct the HAF:

1. To have completed the sixth (6) semester of studies at the time of the start of his/her internship.
2. Have successfully completed at least 25 courses.

It is noted that in case there are places available, students with fewer courses than 25 will be given the opportunity to participate.

Foreign students studying at the Department through the Erasmus+ Program cannot participate in the Internship.

Criterias of choice

In the event that the available places are less than the applications of the interested students, then the following **selection criteria** apply:

1. To have completed the sixth (6) semester of studies at the time of the start of his/her internship.
2. Have successfully completed at least 25 courses.
3. The evaluation grade of each application resulting from the following relationship is applied: A = (X+Y/2)*MO*0.95n *100, where X: the ratio of the number of compulsory courses in which the student has been successfully examined to the total of the compulsory courses corresponding to the semester of study according to the curriculum of the study guide, Y: the ratio of the number of elective courses in which the student has been successfully examined to the total of the courses of choice of the specialization corresponding to the semester of his/her study according to the program of the study guide, MO: the average of the grade of the courses in which the student has been successfully examined. (The average will be obtained as defined in the Study Guide for the degree grade, i.e. with weight factors wi=1.5 for the elective courses). n: the number of semesters of study after the tenth.

It is noted that in case there are places available, students with fewer courses than 25 will be given the opportunity to participate.

The above criteria are also used for the placement of students in the Host Institutions, in case there is more than one student interested in the same position.

Student applications - Selection - Objections

Students' applications are made in a specific way and on specific dates, through the Information System of the Internship Office. The application process, as well as the

dates, are announced on the website of the Department and/or on the website of the Internship Office. The duration for the submission of applications for the Internship of students is a minimum of ten (10) calendar days. After the selection of students by the Internship Committee, the results are posted on the website of the Department and/or on the website of the Internship Office of the Aristotle University of Thessaloniki. Students who have not been selected (and if there is a reason), have the right to submit electronically (in a special form/form) to the Internship Office of the Aristotle University of Thessaloniki within five (5) calendar days from the posting of the results. Objections are examined by the competent Internship Objections Committee. The final list of selected/runner-up students who will undertake an Internship is approved by the Assembly of the Department.

Especially for the Internship funded by a Host Institution, the rules of Paragraph 3.8C of the Internship Regulation of the Aristotle University of Thessaloniki are followed based on the provisions of Law 5128/2024 (article 44) & Law 4957/2022 (article 208). The selected students who will undertake an Internship are approved by the Assembly of the Department.

Selection of Host Institution

The Internship Committee, in collaboration with the Internship Office, supports students in finding a Host Organization for the Internship.

The Internship Committee may place the student in a Host Institution from among the already cooperating or approve a Host Institution, which the student has proposed himself/herself.

For reasons of moral ethics, the student cannot carry out his/her Internship with a relative (e.g. parents, uncles, etc.).

In any case, the registration and allocation of Internship positions for first-cycle students must be carried out in the special ATLAS Information System of the Greek State Societe Anonyme under the name "National Infrastructures for Research and Technology S.A." (E.D.Y.T.E. S.A.). For the purposes of the General Data Protection Regulation (OJ L119) and Law 4624/2019 (A' 137), the Ministry of Digital Governance and the Ministry of Education and Religious Affairs act as Data Controllers and E.D.Y.T.E. S.A. as the Data Processor. Each internship position for students of the first cycle of studies of the Aristotle University of Thessaloniki must be published and recorded in the ATLAS information system.

Change of Host Institution – Termination of Internship

In cases of change of Host Institution or termination of the Internship, the provisions of the Institution's Internship Regulation apply.

Student Rights and Obligations

- Before the start of his/her Internship, the student must follow the instructions that will be given by the Department and/or the Internship Office regarding the implementation of the Internship.
- During the Internship, the student trainee is entitled to one (1) day off per month of Internship, for personal, health or educational reasons (e.g. exams). The trainee can use the days of absence either partially or as a whole during the Internship. In case he/she wishes to use his/her leave for personal or educational reasons, then he/she should inform by email of his/her absence two (2) days in advance the appointed Internship Supervisor on the part of the Institution, the Internship Office and of course the Host Institution. In case he/she does not inform two (2) days in advance and after a check it is found that the intern student is absent from the Host Institution, this absence will be considered unjustified and will be a reason for cancellation of the Internship. When there are health reasons, then the trainee can inform about his/her absence on the same day.
- The student trainee in the area of the Internship is obliged to follow the safety and work regulations as well as any other regulation that applies to the staff of the Host Institution. Unexcused absences or violation of workplace regulations can lead to the termination of the Internship. In this case, the student may repeat the Internship, in accordance with the provisions of the Institution's Internship Regulations.
- In order to complete the Internship, the following deliverables are required for each intern:

  1. **E3.5 start form:** the form must be registered by the Host Institution in the ERGANI Information System before the start of the Internship and sent to the Internship Office electronically (praktiki@auth.gr) or by post or delivered through the intern on specific dates set by the Internship Office of the Aristotle University of Thessaloniki. along with all the details of starting the Internship.
  2. **Signed Internship Contracts:** the signed Internship contracts must be sent by the

Host Institution to the Internship Office of the Aristotle University of Thessaloniki, either by post or delivered through the intern on specific dates, set by the Internship Office of the Aristotle University of Thessaloniki. For the submission dates, the Host Institution is informed electronically, along with all the details of the start of the Internship.

3. **Electronic Internship Evaluation by the intern:** completed by the intern in a special form, which is available in the Information System of the Internship Office of the Aristotle University of Thessaloniki, after the end of the Internship.
4. **Expiration Form E3.5:** the form must be registered by the Host Institution in the ERGANI Information System no later than four (4) working days after the end of the Internship and send it to the Internship Office electronically (praktiki@auth.gr) or by post or to be delivered through the intern on specific dates set by the Internship Office of the Aristotle University of Thessaloniki.
5. **Electronic Internship Evaluation by the Host Institution:** completed by the Host Institution in a special form, which is available in the Information System of the Internship Office of the Aristotle University of Thessaloniki, after the end of the Internship.
6. **Electronic Internship Evaluation by the Internship Supervisor:** completed by the Internship Supervisor in a special form, which is available in the Information System of the Internship Office of the Aristotle University of Thessaloniki, after the end of the Internship.

- The Traineeship Officer decides on the acceptance or rejection of the data/supporting documents. In case of rejection, at the request of the student concerned, the Internship Committee decides definitively on the duration and scope of employment to be carried out in addition or cancels the rejection decision of the Internship Coordinator and accepts the data/supporting documents.
- The intern cannot take an oath before the completion of his/her Internship, since the Internship is a subject of the Curriculum. However, he/she may have completed his/her academic obligations and not submitted an application for oath.

Student Insurance during the Internship

Based on the current legislation, students who conduct an Internship are compulsorily subject to the insurance of the Electronic National

Social Security Institution (e-E.F.K.A.) in accordance with par. 1 of article 10 of Law 2217/1994 (A΄83) only for the risk of the accident. For the insurance of sickness benefits in kind, par. 10 of article 15 of Law 3232/2004 (A' 48).

The student, due to his/her insurance from his/her Internship, does not cease to be insured with his/her parents (or if he/she is directly insured in his/her own insurance), he/she does not lose his/her insurance.

Student Compensation

The compensation from the Internship is carried out in accordance with the applicable legislation and the Internship Regulation of the Institution.

Facilities for students with disabilities and special educational needs.

For cases of expression of interest for participation in the Internship of students with disabilities (PWD) and/or special educational needs, applications will be evaluated with the evaluation criteria that will apply to all interested parties. However, if there are students with disabilities who meet the selection criteria, but are in the first places of the runner-up students, an effort will be made to satisfy their application exceptionally with a simultaneous increase in the number of Internship places offered. At the same time, the Internship Committee, in collaboration with the Internship Office, will take care of finding a Host Institution that can train a student with a disability.

Certificate of Internship

At the end of the Internship, each intern receives a notification from the Internship Office of the Aristotle University of Thessaloniki to receive a certificate of Internship.

It is noted that the Internship can also be carried out:

1. In the framework of the European Erasmus+ Programme. The specific terms and conditions are determined by the regulatory framework of the Office of European Educational Programs of the Aristotle University of Thessaloniki.

Through AIESEC. The specific terms and conditions are determined by the regulatory framework of the AIESEC Office of the Aristotle University of Thessaloniki.

Also, the internship will follow the Internship Regulation of the Aristotle University of Thessaloniki as published in the Government Gazette 5597-B_9.10.2024 and posted on the website of the Internship Office of the Aristotle University of Thessaloniki:

NEWSPAPER
THE GOVERNMENT
OF THE HELLENIC REPUBLIC

October 9, 2024 | ISSUE TWO | Sheet No. **5597**

DECISIONS

No. 8601

Approval of the Internship Regulations of the Aristotle University of Thessaloniki (A.U.T.H.).

ARISTOTLE'S SYNCLITE
UNIVERSITY OF THESSALONIKI

Considering:

1. Law 4957/2022 "New Horizons in Higher Education Institutions: Strengthening the quality, functionality and connection of HEIs with society and other provisions" (Government Gazette A' 141) and in particular paragraph 4 of article 16, article 44 and article 69 thereof.

2. Articles 75 to 83 of Law 4727/2020 “Digital Governance (Incorporation into Greek Law of Directive (EU) 2016/2102 and Directive (EU) 2019/1024) - Electronic Communications (Incorporation into Greek Law of Directive (EU) 2018/1972) and other provisions” (Government Gazette A' 184).

3. Law 4624/2019 “ Personal Data Protection Authority, implementing measures of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and incorporation into national legislation of Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 and other provisions” (Government Gazette A' 137).

4. The no. 26770/24.11.2023 (Y.O.D.D. 1287) act of the Rector of the Aristotle University of Thessaloniki, on the establishment of the Board of Directors of the Aristotle University of Thessaloniki.

5. The no. 43153/8.2.2024 (Y.O.D.D. 100) declaratory act of the acting Rector of the Aristotle University of Thessaloniki, regarding the election of Charalambos Feidas, son of Nikolaos, Professor of the Department of Geology of the School of Sciences, as Rector of the Aristotle University of Thessaloniki.

6. The no. 45454/19.2.2024 (Y.O.D.D. 150) declaratory act of the Board of Directors of the Aristotle University of Thessaloniki, on the appointment of four (4) Vice-Rectors at the Aristotle University of Thessaloniki, based on par. 2 of article 12 of law 4957/2022.

7. The decision no. 47286/27.2.2024 (B' 1373) of the Rector of the Aristotle University of Thessaloniki, on determining the areas of responsibility of the Vice-Rectors and the responsibilities transferred to them, based on par. 3 of article 12 of the Law 4957/2022 and determining the order of replacement of the Rector by the Vice-Rectors, when he is absent or prevented from exercising his duties, based on par. 2 of article 15 of Law 4957/2022.

8. No. 2748/11.9.2024 (AD: P4ZM46ÿ8ÿÿ-ÿ50) decision of the Senate of the A.U.T. (meeting no. 3149/28.8.2024), on the appointment of the Institutional Head of the A.U.T.'s Internship Program in accordance with article 69 of law 4957/2022, as amended by article 44 of law 5128/2024.

9. No. 6340/23.9.2024 (AD: 6ÿÿÿ46ÿ8ÿÿ- ÿ3ÿ) declaratory act of the Rector of the Aristotle University of Thessaloniki, on the establishment of the Senate of the Aristotle University of Thessaloniki for the academic year 2024-2025.

10. The proposal no. 86751/26.8.2024 of the Vice- Rector for Academic Affairs, Lifelong Learning, International Relations and Outreach of the Aristotle University of Thessaloniki and the discussion held at the meeting of the Senate of the Aristotle University of Thessaloniki no. 3149/28.8.2024.

11. The proposal no. 5468/19.9.2024 of the Foundation-Head of Internship at the Aristotle University of Thessaloniki

12. No. 6143/23.9.2024 (ADA: ÿÿ1ÿ46ÿ8ÿÿ- TYT) decision of the Board of Directors of the Aristotle University of Thessaloniki on the approval of the content of the Student Internship Agreement Standards of the Aristotle University of Thessaloniki.

13. The presentation by the Rector of the Aristotle University of Thessaloniki, Professor Charalambos Feidas.

14. The fact that the provisions of this article do not cause any expenditure on the state budget , we decide:

The approval of the Internship Regulations of the Aristotle University of Thessaloniki (A.U.T.H.) as follows:

1. GENERAL

1.1. Purpose

Students of the Aristotle University of Thessaloniki, during their studies, carry out an Internship, provided that this is defined by the Undergraduate Studies Program (P.P.S.) of the Departments or Postgraduate Programs.

Studies (P.M.S.). The Internship is an educational activity of the Departments' Curriculum , which aims at the practical application of the theoretical scientific knowledge acquired from the successful completion of the Curriculum and the familiarization of students with potential workplaces.

The benefits for students from their participation in the Internship are:

• The first contact with the professional world and the acquisition of the necessary extroversion,

• familiarity with market trends and skills required,

• the application of the knowledge they acquired at the University to the field of work that interests them,

• getting to know the various subjects of the professional field, so that they can choose what offers them the most benefits on a professional and personal level.

1.2. What is Practical Training?

The Internship is included in the first and second cycle Study Programs as a compulsory or elective course and can be a course for obtaining a degree, or be included in the Diploma Supplement, depending on the internal regulations for Internship of the Department's P.P.S. or P.M.S.

It concerns the short-term presence of students and the performance of duties in potential workplaces. The Internship may be carried out in public services, Legal Entities of Public Law (N.P.D.D.), Local Government Organizations (LGOs) of A' and B' degree, Legal Entities of Private Law (N.P.I.D.) and businesses, hereinafter referred to as "Hosting Bodies", under the guidance of a Supervisor of the Host Organization and the supervision of a lecturer of the Study Program.

The Internship may also be conducted in Host Institutions abroad, provided that supervision of the educational process is possible, in accordance with the provisions of the internal regulations for Internship of the Department's P.P.S. or P.M.S.

In each Study Program, there may be more than one Practical Training course, for each of which the details are specified in the internal regulations for Practical Training of the Department's P.P.S. or P.M.S.

The Internship takes place exclusively at the premises or service provision facilities of the Host Institution where the student intern is present. In the event of his/her travel outside the above premises as part of his/her Internship, the costs of travel and any accommodation shall be borne by the Host Institution.

Successful completion of the Internship entails the award of the number of credit units (European Credit Transfer and Accumulation System - ECTS), determined by decision of the Council.

of the relevant Department or the Coordinating Committee (C.E.) for the P.M.S.

2. ORGANIZATION OF THE PRACTICAL EXERCISE

The following contribute to the proper implementation of the Internship from the Institution's side:

• The Institutional Internship Manager,

• the Internship Manager of the P.P.S. or the P.M.S.,

• the Internship Committee of the P.P.S. or the P.M.S.,

• the Practical Training Appeals Committee of the P.P.S. or the P.M.S.,

• the Practical Training Supervisors of the P.P.S. or the P.M.S.,

• the Foundation's Internship Office.

2.1. Institutional Manager

By decision of the Senate, the Institutional Internship Manager is appointed for a three-year term, who comes from among the members of the Teaching and Research Staff (T.E.P.) or Laboratory Teaching Staff (E.D.I.P.) or Special Educational Staff (E.E.P.) or Special Technical Laboratory Staff (E.T.E.P.) and has the general supervision of the Institution's Internship.

The responsibilities of the Institutional Internship Manager are:

• The smooth operation of the Internship at the Institution,

• the overall supervision of all first and second cycle Practical Exercises implemented at the Institution,

• meetings (at least once a year) with the Internship Managers, in order to discuss current issues regarding the Internship,

• regular and extraordinary information of all Internship Managers on any new procedures that arise regarding the implementation of the Internship (e.g. due to changes in applicable legislation),

• communication with potential Host Institutions, which can offer Internship positions to students from various University Study Programs. Communication can be by telephone , email or in person when this is feasible and provided that the necessary funds are available for its implementation,

• travel for supervision of students of the Department , when deemed necessary and provided that the necessary funds are available for this purpose,

• the collection and maintenance of statistical data from all Study Programs that carry out Internships, with a special data collection form that will be sent to the Internship Managers once a semester,

• the coordination of publicity and promotion activities for the Internship, in collaboration with the Internship Office.

2.2. Internship Manager

By decision of the Assembly of the Department's P.P.S. or the Coordinating Committee (C.E.) for the P.M.S., the Practical Training Manager is appointed, with a three-year term, for each Practical Training course of the P.P.S. of the Department or the P.M.S., coming from the members of the Teaching Research Staff (D.E.P.) or Laboratory Teaching Staff (EDIP) or Special Educational Staff (EEP) or Special Technical Laboratory Staff (ETEP) of the Department or the P.M.S.

The Internship Supervisor may be common to all or a number of Study Programs of the same Department.

The responsibilities of the Internship Manager are:

• The general supervision of the educational process of the Practical Training within the framework of the Curriculum .

• The coordination of the Internship Supervisors and of the Host Institutions.

• Participation in the Internship Committee as a supervisor.

• The preparation and submission of the annual report on the implementation and evaluation of the Practical Training program to the Assembly of the Department's P.P.S. or the Coordinating Committee (C.C.) for the P.M.S.

• Travel for the supervision of students of the Department , when deemed necessary and provided that the necessary funds are available for this purpose.

• Completing the special statistical data collection form once a semester that is sent to him by the Institutional Manager.

• Informing the secretariat of the Department's or the Postgraduate Program's P.P.S. about the successful completion of the Internship of each student intern/ third, in order to register the Credit Units (ECTS) to the student.

• The collection of deliverables for the completion of the Internship, in collaboration with the Internship Office, in accordance with the provisions of the Internship Internal Regulations of the Department's P.P.S. or P.M.S.

2.3. Internship Committee

By decision of the Assembly of the Department's P.P.S. or the Coordinating Committee (C.E.) for the P.M.S. , a three-member Practical Training Committee is appointed with a corresponding number of alternate members, with a three-year term, for each Practical Training course of the Department's P.P.S. or P.M.S., consisting of members of the Teaching Research Staff (DEP) or Laboratory Teaching Staff (EDIP) or Special Educational Staff (EEP) or Special Technical Laboratory Staff (ETEP) of the Department or P.M.S. The Practical Training Committee is headed by the Practical Training Manager.

The Internship Committee may be common to all or a number of Study Programs of the same Department.

The responsibilities of the Internship Committee are:

• The evaluation of applications from students who wish to conduct an Internship, if this is not mandatory and if the number of Internship positions is not sufficient to cover all applications from interested students/
of the Program. The evaluation of student applications is carried out based on the conditions and selection criteria specified in the internal regulations for Internship of the Department's P.P.S. or P.M.S. In particular, in the case where the Internship is covered by the budget of co-financed programs or projects financed from own or private resources managed by the Special Research Fund Account (SRA) of the Aristotle University of Thessaloniki, the conditions and selection criteria may also be applied to students with mandatory Internship, when the budget is not sufficient to cover all students.

• Submission of the final list of selected/ eligible students who will carry out an Internship to the Department Assembly or the Coordinating Committee (CC) for the Postgraduate Diplomas for approval.

• The coordination of activities concerning in the students' Practical Training.

• Supporting students, in collaboration with the Internship Office, in finding a Host Organization to conduct the Internship.

• Approval of a change of Host Institution when appropriate reasons exist.

• Resolving any problems that arise during the students' Practical Training.

• The designation of a Practical Training Supervisor per student trainee.

• Submitting suggestions for amending the Curriculum with regard to Internship issues.

2.4. Internship Appeals Committee

By decision of the Assembly of the Department's P.P.S. or the Coordinating Committee (C.E.) for the P.M.S., a three-member Practical Exercise Appeals Committee (with a different composition from the Practical Exercise Committee), with a corresponding number of alternate members , is appointed for each Practical Exercise course of the P.P.S. of the Department or the P.M.S., with a three-year term, consisting of members of the Teaching Research Staff (D.E.P.) or Laboratory Teaching Staff (E.D.I.P.) or Special Educational Staff (E.E.P.) or Special Technical Laboratory Staff (E.T.E.P.) of the Department or the P.M.S.

The Internship Appeals Committee is authorized by the Department Assembly or the Coordinating Committee (C.C.) for the Postgraduate Studies to examine any student appeals concerning their selection by the Internship Committee,

when the Internship is not mandatory and selection criteria are applied. The Internship Appeals Committee communicates the decisions on the appeals to the Internship Committee, which must implement them and issue the final list of students. A joint Appeals Committee may be appointed between P.P.S. or P.M.S. Study Programs at the School or Institution level.

2.5. Practical Training Supervisors

Internship Supervisors are appointed by the Department or the P.M.S. by the Internship Committee . Internship Supervisors are appointed by the Internship Committee for each student.

The responsibilities of the Internship Supervisor are:

• Guidance and support of students throughout the Internship process in Host Institutions.

• Communication with Host Institutions to achieve the desired learning outcomes.

• Informing the Supervisor and the Internship Committee .

• The recording of student leaves, in collaboration with the Internship Office.

• Travel for the supervision of students of the Department , when deemed necessary and provided that the necessary funds are available for this purpose.

2.6. Internship Office

The Internship Office is part of the Student Support Unit of the Institution. The Internship Office may be staffed by University administrators or external collaborators, in the event that this is provided for by the budget of co-financed programs or projects financed from own or private resources managed by the Special Research Funds Account (SRA) of the Aristotle University of Thessaloniki.

The Internship Office is supervised by the Institutional Internship Manager.

The responsibilities of the Internship Office are:

• Support for the Internship programs of all the first and second cycle Study Programs of the Foundation.

• Support for Internship Managers and Internship Committees per Study Program.

• Supporting students, in collaboration with the respective Internship Committee, in finding or changing a Host Organization (when appropriate) for the conduct of the Internship.

• The maintenance and collection of student data/ three and the collaborating Host Institutions for the conduct of an Internship.

• Updating the Integrated Internship Management Information System of HEIs with the necessary data per case.

• The attraction of public services, Legal Entities of Public Law (LEP), Local Government Organizations (LGO) of first and second degree, Legal Entities of Private Law (LEP), and businesses , in order to join as Host Bodies for the conduct of Internships.

• Communication with the Reception Agencies on issues relating to the conduct of a Practical Exercise.

• The recording of student leaves, in collaboration with the Internship Supervisors.

• The collection of deliverables for the completion of the Practical Training, in collaboration with the respective Practical Training Supervisor, in accordance with the provisions of the internal regulations for Practical Training of the Department's P.P.S. or P.M.S.

• The preparation of annual reports, the preparation of studies and the maintenance of statistical data regarding the implementation and evaluation of the Practical Training.

• Coordination of publicity and promotion activities for the Internship, in collaboration with the Institutional Internship Manager.

3. IMPLEMENTATION OF THE PRACTICAL EXERCISE

3.1. Defining basic elements of Practical Exercise

In order to implement the Practical Training, by decision of the Assembly of the Department's P.P.S. or the Coordinating Committee (C.E.) for the P.M.S., the details regarding the conduct of the Practical Training are determined , which are listed in their internal Practical Training regulations.

The Assembly of the Department's P.P.C. or the Coordinating Committee (C.E.) for the P.M.S. should determine the following for each Practical Training course of the Curriculum:

• Whether the Practical Training course of the Curriculum is mandatory or not for the award of the degree.

• The number of Credit Units (ECTS) that the Practical Training course receives.

• In the case of an elective course, if it is included in the required Credit Units
(ECTS) for obtaining a degree or if it is listed exclusively and only in the Diploma Supplement.

• Whether the course receives a grade or whether it is in the form of “pass/fail.” In the case where the course receives a grade, whether it is counted in the calculation of the general average.

• The duration of the Practical Training (the student's presence at the Host Institution), for the Practical Training course, in calendar months.

• The period or periods of implementation of the Internship.

• The minimum academic progress requirements that must be met before the commencement of the Internship.

• The selection criteria for the evaluation of student applications, in the event that the available Internship positions are fewer than the student applications, in accordance with what is defined in par. 2.3 hereof.

• The total weekly hours of Practical Training (student's presence at the Host Institution).

• The supporting documents submitted at the end of the Internship by the student and the Supervisor of the Host Institution.

• Whether or not it is possible to extend the duration of the Internship up to six (6) months at the same Host Institution, when the specified duration is less than six (6) months, with terms and conditions that include at least the consent of the Internship Supervisor, the student/

The cost of compensation and insurance for the additional period of Internship is borne exclusively by the Host Institution, in accordance with applicable legislation.

3.2. Student Applications - Selection - Objections

Student applications are made in a specific manner and on specific dates , determined by the Internship Committee of the Department or the Postgraduate Program. The application submission procedure, as well as the dates, are announced on the Department's website and/or on the website of the Internship Office. The duration of application submission for the Internship of students is at least ten (10) calendar days.

After the selection of students by the Internship Committee, the results are posted on the Department's website and/or on the website of the AUTh Internship Office. Students who have not been selected (and if there is a reason), have the right to submit an electronic objection (on a special form/form) to the AUTh Internship Office within five (5) calendar days from the posting of the results. The objections are examined by the competent Internship Objections Committee appointed by decision of the Department Assembly or the Coordinating Committee (C.E.) for the P.M.S. The final list of selected/ second-choice students who will carry out an Internship is approved by the Department Assembly or the Coordinating Committee (C.E.) for the P.M.S.

3.3. Selection of Host Organization

The Internship Committee of each Internship course, in collaboration with the Internship Office, supports the students/
difficulties in finding a Host Organization to conduct the Internship.

Depending on what is provided in the internal regulations of the Department's P.P.S. or P.M.S. Internship Program , the Internship Committee may place the student in a Host Organization from among those already collaborating or approve a Host Organization that the student has proposed.

For ethical reasons, the student cannot carry out his/her Internship with a relative (e.g. parents, uncles, etc.).

In any case, the registration and allocation of Internship positions for first-cycle students is carried out mandatorily in the special ATLAS Information System of the Greek State public limited company under the name “National Network of Technology and Research Infrastructures S.A.” (EDYTE S.A.). For the purposes of the General Data Protection Regulation (EU L119) and the

Law 4624/2019 (A' 137), the Ministry of Digital Governance and the Ministry of Education and Religious Affairs act as Data Controllers and E.D.Y.T.E. S.A. as Data Processor. Each internship position that concerns first-cycle students of the Aristotle University of Thessaloniki is mandatorily published and recorded in the ATLAS information system.

3.4. Change of Host Organization - Interruption of Internship

Change of Host Institution or Interruption of the Internship is possible by decision of the Internship Committee of the Department's P.P.S. or P.M.S.

Change of Host

If during the Practical Exercise:

• The student intern or the designated Internship Supervisor determines that the administration of the Host Institution does not follow the provisions of par. 3.10 hereof or is employing the students elsewhere or

• there are serious problems of cooperation between the intern and the student, which cannot be resolved, following the agreement of the Internship Supervisor, or

• there are serious health reasons for the trainee , which are proven by the necessary supporting document(s) from a Public Health Structure, and require his/her absence for a period longer than the number of days of leave provided for

The student intern must declare this in writing, both to the Internship Supervisor and to the Internship Committee. The latter decides whether there is a reason to change the internship position or not. If there is a reason, then the Internship Committee, in collaboration with the Internship Office, arranges for the placement of the student intern in another position. Provided that the new Host Institution agrees, the Internship in the new Host Institution can only be carried out for the remaining period of time for the completion of the Internship, as long as it takes place within the same academic year.

In cases where:

• The new Host Institution does not agree that the Internship will only take place for the remaining period of time for the completion of the Internship, or

• for reasons of force majeure , the Internship cannot be carried out within the same academic year, then the student must carry out the

His/her Internship Practice again for the entire Internship period at the new Host Institution.

Interruption of Practice

The Internship is also interrupted even if none of the above reasons apply, but the intern student:

• He/She wishes to discontinue his/ her Internship for personal reasons, after informing the Supervisor and the Internship Committee of the Department's P.P.S. or the P.M.S. or

• does not comply with its contractual obligations, in accordance with par. 3.9 hereof,

• does not comply with the safety and work regulations, as well as any other regulation applicable to the staff of the Host Institution, following written notification by the Host Institution to the Internship Supervisor and the Internship Committee of the Department's or the Postgraduate Program's P.P.S.

In the event of interruption of the Internship:

a) If the Practical Training is a mandatory course, then the student will have to re-do his/her Practical Training for the entire duration .

b) If the Internship is an elective course, then the student will have the right to re-take the Internship for the entire period, upon submitting his/her relevant request to the Internship Committee only after its approval.

3.5. Student insurance

Based on the current legislation, students who carry out an Internship are compulsorily covered by the insurance of the Electronic National Social Security Institution (e-EFKA) in accordance with par. 1 of article 10 of law 2217/1994 (A' 83) only for the risk of accident. For the insurance of sickness benefits in kind, par. 10 of article 15 of
Law 3232/2004 (A' 48).

This also applies to those who are referred according to a reasoned decision of the President of DOATAP to carry out an Internship by a domestic HEI within the framework of the compensatory measures for the recognition of the academic equivalence of first-cycle degrees, in accordance with article 311 of Law 4657/2022.

When the Internship is compensated, in accordance with what is defined in paragraphs 7 and 8 of article 44 of the Law 5128/2024, the insurance cost is included in the compensation and is borne by the body that compensates the Internship (Hosting Body or E.L.K.E. through co-financed programs or projects financed from own or private resources). If the compensation is partly borne by both the Hosting Body and the E.L.K.E., then the insurance cost is borne by the Hosting Body and is included in the compensation. If the Internship is not compensated, the insurance cost is borne by the budget of projects financed from own or private resources managed by the Special Research Fund Account (SRA) of the Aristotle University of Thessaloniki. For persons who must carry out an Internship, according to a reasoned decision of the President of the DOATAP, the cost of insurance is borne by the Host Institution. The institution funding through EU funds has the exclusive responsibility for paying compensation and insurance contributions. Any other claim against accident or damage risk coverage is borne by the Host Institution.

3.6. Student compensation

The Internship is compensated, upon completion of the Internship educational process , in accordance with applicable legislation (paragraphs 7 and 8, article 44, Law 5128/2024).

The Internship is compensated, provided that the weekly duration is equal to or greater than half of the weekly employment of the respective supervisor at the Host Institution and in any case greater than twenty (20) hours per week. For cases of Internship with a total duration greater than twenty (20) hours, the Internship is considered full-time when it corresponds to a weekly duration of Internship equal to the weekly employment of the respective supervisor at the Host Institution, while as part-time when it corresponds to a weekly employment equal to half of the hours of the weekly employment of the respective supervisor at the Host Institution and in no case less than twenty (20) hours. In any case, the full-time Internship does not exceed forty (40) hours per week. The Internship compensation is paid to the student in accordance with the provisions of article 52 of Law 4611/2019 (Government Gazette A' 73).

For students in the first cycle of studies , the cost of compensation may be borne entirely or partially by priority by the Host Institutions, or the budget of co-financed programs or projects financed from own or private resources managed by the Special Research Funds Account (SRA) of the AUTh. For students in the second cycle of studies, the cost of compensation may be borne entirely or partially by the Host Institutions or the budget of projects financed from own or private resources managed by the Special Research Funds Account (SRA) of the AUTh, in the event that no tuition fees are provided for in the Master of Science (MSc). If in the Master of Science (MSc) or in the P.M.S. tuition fees are provided, the cost of compensation may be borne in part or in full by the Host Institutions or the budget of the P.P.S. or P.M.S.

Based on current legislation, the granting of compensation for conducting an Internship does not constitute a reason for the interruption of other financial benefits granted or special allowances or pensions that students receive or are entitled to receive.

of the University for other reasons. During the Internship, students , apart from their right to compensation and insurance, do not acquire any other employment or pension rights .

3.7. Internship Agreement

Before the start of the Internship , an Internship Agreement is concluded between the Institution, the Host Organization and the intern. The agreement is common to the entire AUTh (a model agreement is provided in the Annex to these regulations below). The agreement may differ only in the case that the Internship is carried out within the framework of co-financed programs, in accordance with any special regulations resulting from the financing act. The agreement is signed by the contracting parties, who receive a copy.

3.8. Internship Start Procedure

The procedure followed for the commencement of the Practical Training of first and second cycle students of the Aristotle University of Thessaloniki depends on the method of implementation.
and is divided into 4 categories:

A) Financing of the Internship through ELKE from co-financed programs.

B) Funding of the Internship through ELKE from funded programs from own or private resources.

C) Funding of the Internship by a Host Organization.

D) Coverage only of the student's insurance contribution.

A) Financing of the Internship through ELKE from co-financed programs.

In the event that the students' Internship is funded by co-funded programs managed by ELKE AUTh, then the following procedure is followed:

1. The Practical Training Manager of each Practical Training course, in collaboration with the Practical Training Office of the Aristotle University of Thessaloniki, announces at the beginning of the academic year the implementation periods of the Practical Training, in accordance with the internal regulations of the Practical Training Program of the Department or the Postgraduate Program.

2. The Internship Manager of each Internship course, in collaboration with the AUTh Internship Office, announces the dates for student applications within a reasonable period of time before the start of the Internship , which are carried out electronically through the Information System of the AUTh Internship Office.

3. After the deadline for student applications, the Internship Committee of the Department's P.P.S. or P.M.S. ranks the students (temporary ranking list), according to the criteria set by the Assembly of the P.P.S. of the Department. or the Coordinating Committee (C.E.) for the P.M.S. and are listed in the internal regulations for the Practical Training of the P.P.S. of the Department or the P.M.S.

4. The Practical Training Committee of the Department's or the Postgraduate Program posts the provisional ranking list of students, as well as the dates for objections, in accordance with par. 3.2. hereof.

5. Upon the expiry of the objections date, any objections are examined by the competent Practical Training Appeals Committee of the Department's P.P.S. or P.M.S. and the final ranking list is posted, in accordance with par. 3.2. hereof.

6. The final ranking list of selected/ eligible students who will carry out an Internship is forwarded by the Internship Committee to the Department Assembly or the Coordinating Committee (C.C.) for the Postgraduate Certificates for approval.

7. The Internship Committee, in collaboration with the Internship Office of the Aristotle University of Thessaloniki, places students in Internship positions at cooperating Host Institutions, in accordance with the internal regulations for Internship of the Department's P.P.S. or P.M.S. and what is described in par. 3.3. hereof.

8. The Internship Manager forwards a request for approval to carry out an Internship to the Institutional Manager with notification to the AUTh Internship Office, in a special template that will be provided by the AUTh Internship Office. The request is accompanied by a document from the Department Secretariat or the P.M.S. with the approval of the final ranking list by the Department Assembly or the Coordinating Committee (C.E.) for the P.M.S. The Internship Manager must send the request at least one (1) month before the start of the Internship , in order to ensure that all necessary procedures for the conclusion of contracts are carried out smoothly.

9. The Institutional Manager forwards to the competent body a request accompanied by the list of students with Internship positions at the collaborating Host Institutions, for its approval and signing of the relevant contracts.

10. The request, accompanied by the list of students with Internship positions at the collaborating Host Institutions, is then forwarded to the ELKE AUTH for approval and signing of the relevant contracts by the President of the Research Committee.

11. The contracts are then signed by the Institutional Manager and, subsequently, sent to the Host Institutions and the students for signature.

B) Funding of the Internship through ELKE from funded programs from own or private resources.

In the event that the students' Internship is financed by programs of their own or private resources, managed by ELKE AUTh, the

July of the previous academic year, the Aristotle University of Thessaloniki Internship Office invites Departments to submit, on a special form, a request for each Internship course with the estimated number of students of three that will be practiced in the next academic year, the duration of the Practical Training, whether it is mandatory or optional, as well as the weekly Practical Training schedule of the students (presence of students at the Host Institution), with the internal regulations of the Practical Training of the Department's P.P.S. or the P.M.S.

The Internship Office submits the requests to the competent body of ELKE AUTH for approval.

Then, the following procedure is followed:

1. The Practical Training Manager of each Practical Training course announces at the beginning of the academic year the implementation periods of the Practical Training, in accordance with the internal regulations of the Practical Training Program of the Department or the Postgraduate Program.

2. The Internship Manager of each Internship course announces the dates for student applications within a reasonable period of time before the start of the Internship, which are carried out electronically through the Information System of the AUTh Internship Office .

3. After the deadline for student applications, the Internship Committee of the Department's P.P.S. or P.M.S. ranks the students (temporary ranking list), according to the criteria defined by the Assembly of the P.P.S. of the Department or the Coordinating Committee (C.C.) for the P.M.S. and listed in the internal regulations for Internship of the Department's P.P.S. or P.M.S.

4. The Practical Training Committee of the Department's or the Postgraduate Program posts the provisional ranking list of students, as well as the dates for objections, in accordance with par. 3.2 of this article.

5. Upon the expiry of the objections date, any objections are examined by the competent Practical Training Appeals Committee of the Department's P.P.S. or P.M.S. and the final ranking list is posted, in accordance with par. 3.2 hereof.

6. The final ranking list of selected/ eligible students who will carry out an Internship is forwarded by the Internship Committee to the Department Assembly or the Coordinating Committee (C.C.) for the Postgraduate Certificates for approval.

7. The Internship Committee places students in Internship positions at cooperating Host Institutions, in accordance with the internal regulations for Internship of the Department's P.P.S. or P.M.S. and what is described in par. 3.3 hereof.

8. The Internship Manager forwards a request for approval to carry out an Internship to the Institutional Manager with notification to the AUTh Internship Office, on a special template that will be provided to him by the AUTh Internship Office.

The request is accompanied by a document from the Department Secretariat or the P.M.S. with the approval of the final ranking list by the Department Assembly or the Coordinating Committee (C.C.) for the P.M.S. The Internship Supervisor must send the request at least one (1) month before the start of the Internship , in order to ensure that all necessary procedures for the conclusion of contracts are carried out smoothly.

9. The Institutional Manager forwards to the competent body a request accompanied by the list of students with Internship positions at the collaborating Host Institutions, for its approval and signing of the relevant contracts.

10. The request, accompanied by the list of students with Internship positions at the collaborating Host Institutions, is then forwarded to the ELKE AUTH for approval and signing of the relevant contracts by the President of the Research Committee.

11. The contracts are then signed by the Institutional Manager and, subsequently, sent to the Host Institutions and the students for signature.

C) Funding of the Internship by a Host Organization

In the event that the students' Internship is funded by a Host Institution then:

I. When the Host Institution seeks a student for an Internship, which it finances itself, then the following procedure is followed:

1. The Internship Manager of each Internship course announces the Internship position and the application dates of the students within a reasonable period of time before the start of the Internship, which are carried out electronically through the Information System of the AUTh Internship Office.

2. After the deadline for student applications, the Internship Committee of the Department's P.P.S. or P.M.S. selects the student(s), according to the requirements of the position and the Host Institution, and informs the student(s) and the Host Institution .

3. The Practical Training Committee of the Department's P.P.S. or P.M.S. forwards a request for approval of the implementation of the said Practical Training /Trainings by the Department's Assembly or the Coordinating Committee (C.C.) for the P.M.S.

4. The Internship Coordinator forwards a request for approval to carry out an Internship to the Institutional Coordinator with notification to the AUTh Internship Office, in a special template that will be provided by the AUTh Internship Office. The request is accompanied by a document from the Department Secretariat or the P.M.S. with the approval of the Internship/Exercises in question by the Department Assembly or the Coordinating Committee (C.C.) for the P.M.S. The Internship Coordinator must send the request at least fifteen (15) days

before the start of the Internship, in order to ensure that all necessary procedures for the conclusion of contracts are carried out smoothly.

5. The Institutional Manager forwards to the competent body a request accompanied by the list of students with Internship positions at the collaborating Host Institutions, for its approval and signing of the relevant contracts.

6. The contracts are then signed by the Institutional Manager and, subsequently, sent to the Host Institutions and the students for signature.

II. When the student has sought a Host Organization that will finance his/her Internship, then the following procedure is followed:

1. The student submits a request to the Internship Committee of the Department's P.P.S. or P.M.S., in accordance with what is defined in par. 3.3 hereof.

2. If the request is approved by the Internship Committee of the Department's P.P.S. or P.M.S., the latter forwards a request for approval of the implementation of the said Internship by the Department's Assembly or the Coordinating Committee (C.C.) for the P.M.S.

3. The Internship Coordinator forwards a request for approval to carry out an Internship to the Institutional Coordinator with notification to the AUTh Internship Office, in a special template that will be provided by the AUTh Internship Office. The request is accompanied by a document from the Department Secretariat or the Postgraduate Program with the approval of the Internship in question by the Department Assembly or the Coordinating Committee (SC) for the Postgraduate Programs. The Internship Coordinator must send the request at least fifteen (15) days before the start of the Internship, in order to ensure that all necessary procedures for the conclusion of contracts are carried out smoothly.

4. The Institutional Manager forwards to the competent body a request accompanied by the list of students with Internship positions at the collaborating Host Institutions, for its approval and signing of the relevant contracts.

5. The contracts are then signed by the Institutional Manager and, subsequently, sent to the Host Institutions and the students for signature.

D) Coverage of only the student's insurance contribution

In the event that the Internship has been set with a weekly duration of less than twenty (20) hours, then it is not compensated, but the student conducting the Internship is insured against the risk of accident for the duration of the Internship. The insurance cost is covered in accordance with what is stated in par. 3.5 hereof.

In this case, in July of the previous academic year, the Aristotle University of Thessaloniki Internship Office invites the Departments to submit , on a special form, a request for each Internship course, with the estimated number of students who will be interns in the following academic year, the duration of the Internship, whether it is mandatory or optional, as well as the weekly Internship hours of the students (presence of students/

three at the Host Institution), with the internal regulations for the Internship of the Department's P.P.S. or P.M.S.

The Internship Office submits the requests to the competent body of ELKE AUTH for approval.

Then, the following procedure is followed:

1. The Practical Training Manager of each Practical Training course announces at the beginning of the academic year the implementation periods of the Practical Training, in accordance with the internal regulations of the Practical Training Program of the Department or the Postgraduate Program.

2. The Internship Manager of each Internship course announces the dates for student applications within a reasonable period of time before the start of the Internship, which are carried out electronically through the Information System of the AUTh Internship Office .

3. After the deadline for student applications, the Internship Committee of the Department's P.P.S. or P.M.S. ranks the students (temporary ranking list), according to the criteria defined by the Assembly of the P.P.S. of the Department or the Coordinating Committee (C.C.) for the P.M.S. and listed in the internal regulations for Internship of the Department's P.P.S. or P.M.S.

4. The Practical Training Committee of the Department's or the Postgraduate Program posts the provisional ranking list of students, as well as the dates for objections, in accordance with par. 3.2 of this article.

5. Upon the expiry of the objections date, any objections are examined by the competent Practical Training Appeals Committee of the Department's P.P.S. or P.M.S. and the final ranking list is posted, in accordance with par. 3.2 hereof.

6. The final ranking list of selected/ eligible students who will carry out an Internship is forwarded by the Internship Committee to the Department Assembly or the Coordinating Committee (C.C.) for the Postgraduate Certificates for approval.

7. The Internship Committee places students in Internship positions at cooperating Host Institutions, in accordance with the internal regulations for Internship of the Department's P.P.S. or P.M.S. and what is described in par. 3.3 hereof.

8. The Internship Manager forwards a request for approval to carry out an Internship to the Institutional Manager with notification to the Internship Office of the Aristotle University of Thessaloniki, in a special template that will

given to him by the AUTh Internship Office. The request is accompanied by a document from the Department Secretariat or the P.M.S. with the approval of the final ranking list by the Department Assembly or the Coordinating Committee (C.E.) for the P.M.S. The Internship Supervisor must send the request at least one (1) month before the start of the Internship , in order to ensure that all necessary procedures for the conclusion of contracts are carried out smoothly.

9. The Institutional Manager forwards to the competent body a request accompanied by the list of students with Internship positions at the collaborating Host Institutions, for its approval and signing of the relevant contracts.

10. The request, accompanied by the list of students with Internship positions at the collaborating Host Institutions, is then forwarded to the ELKE AUTH for approval and signing of the relevant contracts by the President of the Research Committee.

11. The contracts are then signed by the Institutional Manager and, subsequently, sent to the Host Institutions and the students for signature.

In all the above cases, for the process of student applications, objections, as well as the registration of necessary student data required for the conclusion of contracts, the Information System of the Aristotle University of Thessaloniki Internship Office is used, in order to maintain a record with the necessary data.

3.9. Rights and Obligations of Students

• Before starting his/her Internship, the student must follow the instructions given to him/her by his/her Department and/or the Internship Office regarding the implementation of the Internship.

• During the Internship, the student intern is entitled to one (1) day of leave per month of Internship, for personal, health or educational reasons (e.g. exams). The student intern may use the days of absence either partially or in total during the Internship. In the event that he/she wishes to use his/her leave for personal or educational reasons, he/she must inform the designated Internship Supervisor from the Institution, the Internship Office and of course the Host Institution of his/her absence by e-mail two (2) days in advance . In case of failure to notify two (2) days in advance and after checking it is found that the student intern is absent from the Host Institution, this absence will be considered unjustified and will constitute a reason for cancellation of the Internship. In case of health reasons, the student intern may notify about his/her absence on the same day.

• The student trainee in the Internship area is obliged to follow the safety and work regulations as well as any other regulations applicable to the staff of the Host Institution . Unjustified absences or violation of workplace regulations may lead to the interruption of the Internship. In this case, the student may repeat the Internship , in accordance with par. 3.4 hereof.

• For the successful completion of the Internship, the intern student is required to submit any information/ document requested by the Internship Manager and/or the Internship Office, as defined by the internal regulations for Internship of the Department's P.P.S. or P.M.S.

• The Internship Supervisor decides on the acceptance or rejection of the data/documents . In case of rejection, upon request of the interested student, the Internship Committee makes a final decision on the duration and scope of the additional work that must be carried out or cancels the Internship Supervisor's rejection decision and accepts the data/documents.

• The intern cannot take the oath before completing his/ her Internship, since the Internship is a course of the Curriculum. However, he/she may have completed his/ her academic obligations and not have submitted an application for the oath.

3.10. Obligations of Host Organizations

The administration of the Host Institutions, where students are interning, is obliged to contribute in the best possible way to the most complete education of the interns. The Host Institutions ensure:

• Regarding first-cycle students , the mandatory registration and allocation of Internship positions in the special ATLAS Information System of the Greek State public limited company under the name "National Network of Technology and Research Infrastructures S.A." (EDYTE S.A.).

• Regarding second-cycle students , the allocation of Internship positions, according to the procedure defined and described in the internal regulations for Internships of the Master of Science (MSc).

• The placement of each student intern in an Internship position, in the field he/she has declared and which is relevant to his/her subject of studies, without however excluding the possibility of job rotation, in cases where this is deemed feasible and appropriate.

• Ensuring a suitable work space and assigning tasks to the student intern/
three based on his/her field of study

• The signing of the Internship contract that will be given to him by the Foundation.

• The insurance of the student intern, in accordance with applicable legislation and what is defined in par. 3.5 hereof.

• The compensation of the student intern/
third, in accordance with the applicable legislation, provided that it is not entirely covered by the budget of co-financed programs or projects financed from own or private resources managed by the Special Research Funds Account (SRA) of the Aristotle University of Thessaloniki.

• Sending any proof of compensation of the student intern to the Internship Office, if requested.

• Informing each student intern about the applicable safety and health rules at the Host Institution.

• The intern's declaration to the ERGANI PS, in accordance with applicable legislation and the sending of a copy of the declaration (forms E3.5) to the Internship Office.

• The appointment of a person responsible for the Internship (Host Organization Supervisor) for each intern with sufficient experience in the subject of the internship, who:

- Supervises the practice and performance of the trainees,

- submits proposals to the management of the Host Institution for improving the training conditions of the trainees,

- collaborates with the Internship Supervisor from the Institution's side for the most effective student internship,

- must submit, at the end of the students' internship, to the Internship Manager, or/
and to the Internship Office, all the necessary information/ documents, as defined by the internal regulations for Internship of the Department's P.P.S. or P.M.S.

3.11. Supervision

Supervision by the Foundation may be carried out in one of the following ways:
• communication via computer (e.g. e-mail, skype, zoom),
• telephone communication,
• on-site visit to the site where the Internship will be conducted, when this is feasible and when the necessary funds are available for its implementation.

Supervision by the Host Institution is equally important for the successful conduct of the Internship. The designated Host Institution Supervisor must provide the intern with:

the necessary time for his/her guidance and to monitor his/ her progress.

The Internship Supervisors from the Institution and the Host Organization must cooperate for the most effective internship of the students and the resolution of any problems.

3.12. Completion of Practical Exercise
For the successful completion of the Practical Exercise:
• The student intern is required to submit any evidence/documentation of his/her/
requested by the Internship Manager, or/
and the Internship Office, as defined by the internal regulations for Internship of the P.P.S. or the P.M.S.

• The Internship Supervisor from the Host Institution must submit, at the end of the students' internship, to the Internship Manager and/or the Internship Office, all necessary supporting documents, as defined by the internal regulations for Internship of the Department's P.P.S. or P.M.S.

• The Internship Manager must inform the secretariat of the Department's or the Postgraduate Program's P.P.S. of the successful completion of the Internship of each student intern, in order to register the Credit Units.

(ECTS) to the student.

3.13. Facilities for students with disabilities and special needs educational needs.

In cases of interest in participating in the Internship of students with disabilities (PWDs) and/or special educational needs, applications will be evaluated using the evaluation criteria that will apply to all interested parties, unless there is a special provision in the internal regulations for Internship of the Department's P.P.S. or P.M.S. However, if there are students with disabilities who meet the selection criteria, but are in the top positions of the shortlisted students/

three, their application will be exceptionally granted with a simultaneous increase in the number of Internship positions offered. At the same time, the Internship Committee, in collaboration with the Internship Office, will ensure that a Host Organization is found that can accommodate a student with a disability.

The regulation is amended by the Senate of the Aristotle University of Thessaloniki according to the needs of the institutional framework and of the Aristotle University of Thessaloniki.

ANNEX A

ELKE-Funded Internship Agreement Template

GREEK DEMOCRACY	
	ARISTOTLE UNIVERSITY OF THESSALONIKI
ARISTOTLE UNIVERSITY THESSALONIKI	

INTERNSHIP CONTRACT

In Thessaloniki today …… the following parties:
a) The legal entity with the name ……., (or the …….., who maintains a sole proprietorship……) with registered office at ……..., with VAT number:……., Tax Office: and is legally represented by ……, *(add the capacity if it is a legal entity),* hereinafter **ENTITY RECEPTION**

b1) The Aristotle University of Thessaloniki, legally represented by……. *(name and property),* hereinafter **A.U.T.**

b2) The Special Account for Research Funds of the Aristotle University of Thessaloniki, legally represented by ……. *(name and capacity),* hereinafter **ELKE Aristotle University of Thessaloniki.**

c) The **Institutional Internship Manager of the Aristotle University of Thessaloniki,** ……..

d) Mr. ……., student of the Department ……. (or of the Postgraduate Program ……..) of Aristotle University of Thessaloniki, resident of *….(city), (…….Address) residence),* hereinafter referred to **as student.**

agree and accept the following:

ARTICLE 1°

The Host Institution accepts the student's Internship at its installation sites in accordance with the following contractual terms, then of the **approval decision...**

The duration of this Contract is set at **…. months, with ….hours per week** with start date on …… and end date on ……. After the expiry of aforementioned period of time, this contract shall automatically terminate.

ARTICLE 2°

This does not constitute in any way a contract of employment or any other other form of paid employment of the student at the Host Institution, as well as

does not aim to provide work or a productive result of any kind. The student will perform specific tasks at the premises of the Organization
Reception within the context of its activity, which is connected with objects that
are included in the cognitive areas of the curriculum where he/she is studying and is
relevant to the purpose of the Practical Exercise.
The subject of the student's Internship is determined jointly by
the Host Institution supervisor, the Internship supervisor from the AUTh side and
by the student.
The Internship is carried out in accordance with the applicable legislation.

ARTICLE 3°

Students who carry out an Internship are subject to mandatory insurance.
of the Electronic National Social Security Agency (e-EFKA) in accordance with par. 1 of
article 10 of law 2217/1994 (A' 83) only for the risk of accident. For insurance
In the case of sickness benefits in kind, paragraph 10 of article 15 of law 3232/2004 (A' 48)
applies. The insurance cost is included in the student's compensation.

ARTICLE 4°

The amount of the student's monthly compensation amounts to…… € per month, including insurance costs, and is borne by the budget.
of the project ……..managed by ELKE A.U.T. and funded by ……..
The compensation is paid upon successful completion of the educational process.
Practical Exercise.

ARTICLE 5°

The implementation of the program will be the responsibility of all parties involved.
expressly undertake to faithfully comply with the obligations and regulations of the relevant
legislation for the conduct of the Internship, the Internship Regulation
A.U.T. (and/or the internal regulations of the P.P.S. or the P.M.S.) and
in accordance with the rules imposed by ethics and good faith for the fulfillment
the objectives of the Practical Exercise.
The student is obliged to follow the operating hours of the Host Organization, the work regulations, the applicable safety and hygiene rules, as well as any
other regulation or regulation applicable to the staff of the Host Organization.
Ms. … has been appointed as the Internship Manager.
The Internship Supervisor on the part of the Host Institution is Ms…….. (email: ……) The Host

Institution undertakes the obligation to register the student in the
ERGANI Information System and send the necessary evidence to the Office
Practical Training AUTh

ARTICLE 6°

Exclusively competent courts for any dispute that may arise from the
This contract designates the courts of Thessaloniki.

This contract is drawn up in five copies signed by all the contracting parties.

THE CONTRACTING PARTIES

For the Host Organization
"....."

.....
.....
.....
(Name & Status of
Legal
Representative)

(Signature and Seal of
Legal Representative)

The student
"....."
(Signature)

For the Aristotle University of Thessaloniki

(name and title)

For the ELKE AUTH

The Chairman of the Research Committee

(name and title)

The Institutional Responsible P.A.

(name and title)

ANNEX B

Internship Contract Template with insurance contributions coverage by ELKE

GREEK DEMOCRACY	
	**ARISTOTLE UNIVERSITY OF THESSALONIKI**
ARISTOTLE UNIVERSITY THESSALONIKI	

INTERNSHIP CONTRACT

In Thessaloniki today **……** the following parties:
a) The legal entity with the name ……., (or the …….., who maintains a sole proprietorship……) with registered office at …….., with VAT number:……, Tax Office: and is legally represented by ……, *(add the capacity if it is a legal entity),* hereinafter **ENTITY RECEPTION.**
b1) The Aristotle University of Thessaloniki, legally represented by……. *(name and property),* hereinafter **A.U.T.**
b2) The Special Account for Research Funds of the Aristotle University of Thessaloniki, legally represented by ……. *(name and capacity),* hereinafter **ELKE Aristotle University of Thessaloniki.**
c) The **Institutional Internship Manager of the Aristotle University of Thessaloniki,** ……..
d) Mr. ……., student of the Department ……. (or of the Postgraduate Program ……..) of Aristotle University of Thessaloniki, resident of *….(city), (…….Address) residence),* hereinafter referred to **as student.**
agree and accept the following:

ARTICLE 1°

The Host Institution accepts the student's Internship
at its installation sites in accordance with the following contractual terms, following the **approval decision .....**
The duration of this Contract is set at **…. months, with ….hours per week** with start date on …… and end date on …….. After the expiry of aforementioned period of time, this contract shall automatically terminate.

ARTICLE 2°

This does not constitute in any way a contract of employment or any other
other form of paid employment of the student at the Host Institution, as well as
does not aim to provide work or a productive result of any kind. The student will perform specific
tasks at the premises of the Organization
Reception within the context of its activity, which is connected with objects that
are included in the cognitive areas of the curriculum where he/she is studying and is
relevant to the purpose of the Practical Exercise.
The subject of the student's Internship is determined jointly by the
Host Institution supervisor, the Internship supervisor from the side of the AUTh and from
the student.
The Internship is carried out in accordance with the applicable legislation.

ARTICLE 3°

Students who carry out an Internship are subject to mandatory insurance.
of the Electronic National Social Security Agency (e-EFKA) in accordance with par. 1 of
article 10 of law 2217/1994 (A' 83) only for the risk of accident. For insurance
sickness benefits in kind, paragraph 10 of article 15 of law 3232/2004 (A' 48) applies.

ARTICLE 4°

Based on the current legislation, there is no monthly compensation for the Internship. The
insurance cost is borne by the budget of the project ……..managed by
ELKE A.U.T. and is funded by …….

ARTICLE 5°

The implementation of the program will be the responsibility of all parties involved.
expressly undertake to faithfully comply with the obligations and regulations of the relevant
legislation for the conduct of the Internship, the Internship Regulation
A.U.T. (and/or the internal regulations of the P.P.S. or the P.M.S.) and
in accordance with the rules imposed by ethics and good faith for the fulfillment
the objectives of the Practical Exercise.
The student is obliged to follow the operating hours of the Host Organization, the work regulations,
the applicable safety and hygiene rules, as well as any
other regulation or regulation applicable to the staff of the Host Organization.
Ms. … has been appointed as the Internship Manager.
The Internship Supervisor on the part of the Host Institution is Ms…….. (email: ……) The Host

Institution undertakes the obligation to register the student in the
ERGANI Information System and send the necessary evidence to the Office
Practical Training AUTh

ARTICLE 6°

Exclusively competent courts for any dispute that may arise from the
This contract designates the courts of Thessaloniki.

This contract is drawn up in five copies signed by all the contracting parties.

THE CONTRACTING PARTIES

For the Host Organization
"....."

.....
.....
.....
(Name & Status of Legal Representative)

(Signature and Seal of Legal Representative)

The student
"....."
(Signature)

For the Aristotle University of Thessaloniki

(name and title)

For the ELKE AUTH

The Chairman of the Research Committee

(name and title)

The Institutional Responsible
P.A. *(name and position)*

ANNEX C

Host-Funded Internship Agreement Template

GREEK DEMOCRACY	
	ARISTOTLE UNIVERSITY OF THESSALONIKI
ARISTOTLE UNIVERSITY THESSALONIKI	

INTERNSHIP CONTRACT

In Thessaloniki today …… the following parties:
a) The legal entity with the name ……., (or the …….., who maintains a sole proprietorship……) with registered office at ……..., with VAT number:……., Tax Office: and is legally represented by ……, *(add the capacity if it is a legal entity),* hereinafter **ENTITY RECEPTION**
b) The Aristotle University of Thessaloniki, legally represented by……. *(name) and property),* hereinafter **A.U.T.**
c) The **Institutional Internship Manager of the Aristotle University of Thessaloniki,** ……..
d) Mr. ……., student of the Department ……. (or of the Postgraduate Program ……..) of Aristotle University of Thessaloniki, resident of *….(city), (…….Address) residence),* hereinafter referred to **as student.**
agree and accept the following:

ARTICLE 1°

The Host Institution accepts the student's Internship
at its installation sites in accordance with the following contractual terms, following the **approval decision .....**
The duration of this Contract is set at **…. months, with ….hours per week** with start date on …… and end date on …… After the expiry of aforementioned period of time, this contract shall automatically terminate.

ARTICLE 2°

This does not constitute in any way a contract of employment or any other other form of paid employment of the student at the Host Institution, as well as does not aim to provide work or a productive result of any kind.
The student will perform specific tasks at the Organization's facilities.
Reception within the context of its activity, which is connected with objects that are included in the cognitive areas of the curriculum where he/she is studying and is relevant to the purpose of the Practical Exercise.
The subject of the student's Internship is determined jointly by the Host Institution supervisor, the Internship supervisor from the side of the AUTh and from the student.
The Internship is carried out in accordance with the applicable legislation.

ARTICLE 3°

Students who carry out an Internship are subject to mandatory insurance. of the Electronic National Social Security Agency (e-EFKA) in accordance with par. 1 of article 10 of law 2217/1994 (A' 83) only for the risk of accident. For insurance In the case of sickness benefits in kind, paragraph 10 of article 15 of law 3232/2004 (A' 48) applies. The insurance cost is included in the student's compensation.

ARTICLE 4°

The amount of the student's monthly compensation amounts to…… € per month, including the cost of insurance, and is borne by the Host Institution. The compensation is paid upon successful completion of the student's educational process.
Practical Exercise.

ARTICLE 5°

The implementation of the program will be the responsibility of all parties involved. expressly undertake to faithfully comply with the obligations and regulations of the relevant legislation for the conduct of the Internship, the Internship Regulation A.U.T. (and/or the internal regulations of the P.P.S. or the P.M.S.) and in accordance with the rules imposed by ethics and good faith for the fulfillment the objectives of the Practical Exercise.
The student is obliged to follow the opening hours set by the Host Institution, the work regulations, the applicable safety and hygiene rules, as well as any other regulation or regulation applicable to the staff of the Host Organization.

Ms. … has been appointed as the Internship Manager.
The Internship Supervisor on the part of the Host Institution is Ms…….. (email: ……) The Host

Institution undertakes the obligation to register the student in the ERGANI Information System and send the necessary evidence to the Office Practical Training A.U.T.

ARTICLE 6°

Exclusively competent courts for any dispute that may arise from the This Convention designates the courts of Thessaloniki.

This contract is drawn up in four copies signed by all parties.

THE CONTRACTING PARTIES

For the Host Organization
"....."

.....
.....
.....
(Name & Status of Legal Representative)

(Signature and Seal of Legal Representative)

The student
"....."
(Signature)

For the Aristotle University of Thessaloniki

(name and title)

The Institutional Responsible P.A.

(name and title)

This decision shall be published in the Government Gazette.

Thessaloniki, October 1, 2024

The Rector
CHARALAMBOS FEIDAS

ΕΘΝΙΚΟ ΤΥΠΟΓΡΑΦΕΙΟ
34 Kapodistriou Street, P.C. 104 32,
Athens Tel. Center 210 5279000
Texts for publication: **webmaster.et@et.gr** *02055970910240020*

C. MOBILITY REGULATION

The “Clean Energy Science and Engineering Programme” **does not provide** student mobility through Erasmus+.

In the event that this possibility is applied in the future, the mobility will be carried out with the regulations of the Senate of the Aristotle University of Thessaloniki (AUTH) at its meeting No.2980/20 & 21-2-2019 where approved the adoption of good practices for the proper implementation of the ERASMUS+ program, which apply proportionally to all study cycles of the Aristotle University of Thessaloniki, in accordance with the applicable Legislation and the Regulation of each Study Programme.

Mobility Regulations (Decision of the General Assembly *20/20.12.2025* of the Mechanical Engineering School of the of the Aristotle University of Thessaloniki)

MOBILITY REGULATIONS

The Assembly of the School of Mechanical Engineering of the Faculty of Engineering of the Aristotle University of Thessaloniki,

at the Meeting No. 20/20.02.2026

having regard to

the decision of the Senate No. 38743/15.1.2026 on the Approval of the Establishment and Internal Regulation of the Joint Undergraduate Program of Studies in English (JEUPS) (BSC.CESE) entitled "Bachelor of Science in Clean Energy Science and Engineering" of the Schools of Mechanical Engineering of the Faculty of Engineering (accelerated), Chemistry of the School of Sciences and Agriculture of the School of Agriculture, Forestry and Natural Environment of the Aristotle University (AUTH)

Decides

As an Accelerating School in the Joint Undergraduate Program of Studies in English (JEUPS) of Study Clean Energy Science and Engineering

that the Mobility Regulations of the BSC.CESE, if included in the Studies Curriculum, will accept and follow the following:

The Joint Undergraduate Program of Studies in English (JEUPS) is subject to and applies, mutatis mutandis and in a supplementary manner, the applicable Mobility Regulations and Good Practices for student mobility, as approved by the Senate of the Aristotle University of Thessaloniki (AUTH) (Decision No. 2980/20 & 21-02-2019), as in force from time to time.

The application of the above regulatory framework to the JEUPS is subject to any specific provisions that may be adopted by the competent inter-School and central governing bodies of the Institution, taking into account the interdepartmental character of the Programme and the need to ensure academic coherence and procedural transparency.

Furthermore, the official website of the Department of European and Educational Programmes of the Institution systematically publishes and updates information, requirements and administrative procedures relating to student mobility, thereby ensuring comprehensive information and equal access for all interested parties.

The Senate of the Aristotle University of Thessaloniki (AUTH), at its meeting No. 2980/20 & 21-02-2019, approved the adoption of good practices for the proper implementation of the ERASMUS+ Programme, which apply, mutatis mutandis, to all cycles of study at AUTH, in accordance with the applicable legislation and the regulations governing each Study Programme.

Procedures are updated and specified in line with the current guidelines of the State Scholarships Foundation (IKY) and are published accordingly by the Department of European and Educational Programmes on its website: https://eurep.auth.gr/el/students/studies The above-mentioned Senate Decision of AUTH provides as follows:

A) Outgoing Students

The following provisions aim to safeguard the right of mobile students to the automatic and full recognition of their period of study at a partner institution, provided that they successfully complete their academic obligations.

1. When completing the Learning Agreement for Studies, which takes place prior to the start of mobility, the ECTS Coordinator, acting as the designated representative of the relevant School in accordance with Ministerial Decision No. F.821/2318T/89676/Z1, must ensure that the workload undertaken at the Host Institution — as declared in the corresponding table of the Agreement (hereinafter "Table A") — amounts to **30 ECTS credits per academic semester**.

For reasons of flexibility and given the heterogeneity of curricula, a deviation from this rule (either positive or negative) is permitted equivalent to the credit value of:

- one (1) course in the case of an academic trimester or semester, and
- two (2) courses in the case of mobility for a full academic year.

2. **Recognition of Workload**

At the same stage — namely during the completion of the Learning Agreement — the ECTS Coordinator must ensure the full recognition of the aforementioned workload by recording, in the corresponding section of the Agreement (hereinafter "Table B"), the courses and ECTS credits from which the student will be exempted upon successful completion of those listed in Table A.

This procedure must have the approval of the General Assembly (or the equivalent competent body) of the relevant School through an appropriate decision (which may be taken once and apply generally). This decision is recorded in the Application–Declaration submitted by outgoing students to the Department of European and Educational Programs.

3. **Categories of Recognition**

The above recognition shall be classified into three categories:

I. Compulsory Courses

Compulsory courses are those defined by the curriculum of the relevant School of Aristotle University of Thessaloniki and require substantial equivalence of content between the course offered at the Host Institution and the corresponding course at the home School.

Recognition:

Courses successfully completed abroad shall be recognized under the title of the equivalent course in the home School.

The signed consent of the course instructor is strongly recommended prior to completing the Learning Agreement.

II. Elective Courses (Specialization or General)

Elective courses (whether within or outside a specialization) are defined by the curriculum of the relevant School. Content equivalence is not required; however, the course must fall within the scientific field covered by the School or its academic units.

Recognition:

Courses successfully completed abroad may be recognized either:

- under the title used at the Host Institution, or
- under the title of a corresponding course in the home School, provided that content correspondence exists between the two courses.

The electronic administrative system supports the recognition and integration of exchange-program courses

("Exchange Program Courses") into the curriculum of each School.

Such courses may be included in the Learning Agreement:

- with their specific title (if a corresponding course exists), or
- without a specific title, simply as an "elective course" (specialization or general).

Schools are encouraged to include a sufficient number of elective courses within their curricula. This provides flexibility in recognition procedures and enriches curricula with subjects not currently offered locally but relevant to the academic field.

III. Free Elective Courses

Free elective courses do not require content equivalence nor inclusion within the scientific field of the School or its academic units.

Recognition:

Courses successfully completed abroad in this category shall be recognized under the title used at the Host Institution.

The total number of ECTS credits for free electives declared in the Learning Agreement prior to mobility must not exceed the number permitted by the home curriculum.

Such courses may also be declared without a specific title, simply as "free elective course."

It is recommended that curricula include a small number of free elective credits (e.g., 6–10 ECTS) during future revisions.

4. For courses falling within the scientific field of the relevant School (compulsory or elective), detailed examples of recognition are provided in **Annex I** (attached).

   Courses that do not fall within the scientific field of the home School shall be recognized as **free elective courses**, as described above. For the recognition of credits from such courses, the alternative combinations proposed in Annex I shall apply.

   It should be noted that during course selection and the preparation of the Learning Agreement, outgoing students are guided by the ECTS Coordinator to ensure that courses outside the scientific field carry a number of ECTS credits that does not exceed the limit permitted by the home curriculum for free elective courses. This will ensure their recognition upon the student's return from the Host Institution.

   The inclusion of such courses in curricula may also facilitate the full recognition of the mobility period:

   - 60 ECTS credits for one academic year
   - 30 ECTS credits for one academic semester
   - 20 ECTS credits for one academic trimester

5. In cases where discrepancies exist in the number of ECTS credits between Aristotle University of Thessaloniki and the Host Institution, the **maximum degree of flexibility** should be applied. All possible combinations of recognition should be examined after the student's return, always within the framework of the applicable curriculum regulations.

   Every effort must be made to ensure recognition of all credits earned at the Host Institution.

   In this process, the principle of **fair recognition**, as defined in the ECTS Users' Guide, must be taken into

   account. This principle allows a deviation of one (1) or two (2) credits, always in favor of the mobile student.

6. Upon the students' return, **all credits earned through successful completion of the agreed academic obligations must be recognized**.

   Recognition shall follow the signed Learning Agreement (initial or amended), which is binding for both the School and Aristotle University of Thessaloniki.

   At the end of their studies, students may also make use of the provision of Article 60 of the AUTH Regulations, which states that:

   "A student is entitled to be examined in two additional elective courses, the grades of which will replace lower grades of other elective courses."

   Under this provision, a student may request — only at the completion of their studies — that two elective courses (including courses successfully completed at the Host Institution) not be counted toward the final degree grade, provided that the required ECTS credits for graduation have been met.

7. Additional ECTS credits from free elective courses exceeding those allowed by the home School's curriculum generally indicate an inappropriate course selection in the Learning Agreement, unless the Host Institution offers no alternative course options for Erasmus students.

In such cases, ECTS Coordinators must reassess the curriculum of the partner institution. If it does not meet the necessary conditions for recognition for undergraduate mobile students, the following options may be considered:

a) Limiting the bilateral agreement to second- and third-cycle mobility (Master's and Doctoral levels)

b) Limiting the agreement to staff mobility only

c) Terminating the bilateral agreement with the institution

The Department of European and Educational Programs annually invites Schools to evaluate their bilateral agreements. The availability of appropriate courses for students constitutes a major evaluation criterion and may justify the modification or termination of an agreement.

8. In light of the above, ECTS Coordinators are advised to inform students about Erasmus+ mobility opportunities from the early years of study.

Early guidance enables students to:

- plan appropriate course selections at Host Institutions
- understand the categories of courses available for recognition
- ensure they meet the required number of ECTS credits for mobility

9. The role of the ECTS Coordinator, as defined by Ministerial Decision No. F.821/2318T/89676/Z1, is of critical importance, as it ensures the proper implementation of the Erasmus+ Program at the School and, by extension, at Aristotle University of Thessaloniki.

This role is directly linked to guaranteeing the full recognition of the study period at the Host Institution. For this reason:

- Frequent changes of ECTS Coordinator should be avoided, in order to ensure continuity and effective management of student mobility.
- It is recommended that the ECTS Coordinator be a member of the School's Curriculum

Committee, due to the strong interconnection between mobility issues and curricula.

- It is also recommended that the ECTS Coordinator be a member of the School's General

Assembly, so as to inform members on Erasmus matters.

These issues concern a large number of students (at least 600 per year) who rely on the expertise and guidance of the ECTS Coordinator and are entitled to full recognition of their studies abroad.

B) Incoming Students

1. It is necessary to ensure that incoming mobile students possess an adequate level of proficiency in the language of instruction, in accordance with the requirements of the relevant bilateral agreement.

The mandatory submission of a recognized language certificate is recommended (where required by the Schools), provided that this obligation is explicitly included in the annex of the bilateral agreement.

2. The Transcript of Records of incoming students must be sent to their Home Institutions no later than five (5) weeks after the end of the mobility period.Failure to comply with this obligation may constitute grounds for termination of cooperation between the two Institutions. For this reason, the ECTS Coordinator, in collaboration with the administrative staff of the Schools, must ensure the timely dispatch of the incoming students' transcripts.

Note:

The terms "student(s)" and "professor(s)" are used in a gender-neutral sense and refer to persons of all genders.

D. PREPARATIONS OF ASSIGNMENTS

Regulation for the Preparation of Assignments (Excerpt from the General Assembly ***20/20.12.2025*** of the Mechanical Engineering School of the of the Aristotle University of Thessaloniki)

REGULATION FOR THE PREPARATION OF

Diploma Theses and relevant written projects

The Assembly of the School of Mechanical Engineering of the Faculty of Engineering of the Aristotle University of Thessaloniki,

at the Meeting No. 20/20.02.2026

having in regard

the decision of the Senate No. 38743/15.1.2026 on the Approval of the Establishment and Internal Regulation of the Joint Undergraduate Program of Studies in English (JEUPS) (BSC.CESE) entitled "Bachelor of Science in Clean Energy Science and Engineering" of the Schools of Mechanical Engineering of the Faculty of Engineering (accelerated), Chemistry of the School of Sciences and Agriculture of the School of Agriculture, Forestry and Natural Environment of the Aristotle University (AUTH)

Decides

As an Accelerating School in the Joint Undergraduate Program of Studies in English (JEUPS) of Study Clean Energy Science and Engineering

that the Regulation for the Preparation of Theses of the BSC.CESE is as follows:

ARTICLE 1

GENERAL

Studies at the Clean Energy Science and Engineering Programme of Studies (BSc.CESE) at the Aristotle University of Thessaloniki include the compulsory preparation of two (2) Theses. The preparation of both (2) Theses is mandatory for the completion of studies and the receipt of the Degree. The two (2) assignments are studies in corresponding scientific areas treated by the BSC.CESE Each student freely chooses the areas in which he/she wishes to prepare his/her assignments, with the only limitation being that they correspond to the subject of the BSC.CESE

Each Project is a matter of design or control of a device, system or process that is based on general principles and aims at a more complete understanding of how the Program graduate will approach the problems he will be called upon to face in practice. Due to the synthetic nature of the papers, their theoretical part must be based on a satisfactory level of knowledge derived from a sufficient number of courses offered by the BSC.CESE

ARTICLE 2

TERMS AND CONDITIONS

A) Senior Project: The student who is in the 7th semester of studies and owes a total of up to eight (8) courses in order to obtain the Degree has the right to start the preparation of the Senior Project. The student must register the assignment through the course registration system. The subject and the start date of the Synthesis Project are determined by the professor, who will supervise the Synthesis Thesis, in consultation with the student, on a subject similar to the direction he/she has chosen. The aim of the Synthesis Project is to introduce the student to the preparation of a completed project in the direction he has chosen. The undertaking and preparation of the Synthesis Thesis is done individually by each student.

B) **Capstone Project:** The right to start the preparation of the Dissertation (Capstone Project) belongs to the student who is in the 8th semester of studies, owes a total of up to four (4) courses to obtain the Degree and has successfully completed and been examined in the Synthesis Thesis. The student must register the Thesis through the course registration system. The topic and the start date of the Thesis are determined by the professor who supervises the thesis, in consultation with the student, and has a topic similar to the specialization direction he/she has chosen. It is recommended, but not mandatory, that the supervising professor of the Dissertation differs from the supervising professor of the Synthesis Thesis in order to increase the pluralism and interaction between students and professors. The aim of the Thesis is to train in the preparation of a thorough and complete study in an advanced subject that deals with the direction of specialization chosen by the student. The undertaking and preparation of the Dissertation can be done individually or jointly by up to two students. In the case of joint study, this should be justified by the estimated load of the proposed Thesis.

All teachers of the BSC.CESE have the right to supervise Assignments.

ARTICLE 3

THESISLOAD - PREPARATION TIME - WRITING LANGUAGE

The Senior Project and the Capstone Project are prepared in the 7th and 8th Semester of Studies respectively, in accordance with the provisions of article 2 of this regulation.

The equivalence in ECTS credits is for 12 ECTS for the Senior Project and 18 ECTS for the Capstone Project.

The expected duration of each Project is one academic semester.

The examination/grading of the Synthesis Project (Senior Project) should be completed exclusively at the end of the 7th semester and before the course registration period of the following semester.

The preparation of the Bachelor's Thesis (Capstone Project) takes place within the 8th semester and can be extended after relevant consultation between the student and the supervising professor, following a reasoned request by the student to the supervising professor, stating the reasons for the extension application, and the new implementation schedule.

The total period of preparation of the Synthesis and Dissertation may not exceed 9 calendar months, unless there are important reasons, as specified in Article 6 of the Internal Regulation of the BSC.CESE

The language of writing the Assignments is English.

ARTICLE 4

Technical requirements of the Thesis

The Synthesis Thesis and the Dissertation must be submitted in electronic form through the official platform of the Institution operating at the time of delivery of the thesis (e.g. e-learning, Moodle, other). The final form of each Thesis is submitted in a single PDF file.

If the nature of the Thesis so requires, the accompanying files (indicatively: data, computer code, technical drawings, simulations, annexes or other digital material) are additionally submitted.

The indicative area is defined as follows:

- Senior Project: 5,000–7,000 words.
- Capstone Project: 8,000–12,000 words.

The area does not include bibliography and appendices.

The text is formatted in A4 page size, with margins of 2.5 cm. The font is set to Arial or Times New Roman, size 11 or 12, with a line spacing of 1.5. The bibliographic documentation must follow the Harvard citation system (author-date), in accordance with the instructions included in the official standard (Template) of the Program listed as an annex to this Regulation.

The use of the official template of the Program is mandatory for both (2) Projects.

ARTICLE 5

EXAMINATION COMMITTEE - SCORE

The Senior Project Examination takes place at the end of the 7th semester and before the submission of course statements for the next semester by the supervising teacher. The method and duration of the examination may be determined by the supervisor and it is recommended that it include an oral presentation by the student.

The Examination of the Diploma Thesis (Capstone Project) takes place exclusively after the successful completion of all the courses required to obtain the Degree. The Thesis is evaluated by a three-member Examination Committee. Members of the three-member Examination Committee can be all the teachers of the BSC.CESE The appointment of the members of the Examination Committee is carried out by decision of the Curriculum Committee of the BSC.CESE, following a proposal by the supervising professor.

The examination process of the Bachelor's Thesis takes place on specific dates and places announced by the BSC.CESE at the beginning of each semester. The student submits the full text of his/her diploma thesis to the members of the Three-Member Examination Committee at least 15 days before the examination date.

During the examination of the Thesis, the student develops the results of the Thesis within ten (10) to fifteen (15) minutes and then answers the questions of the Examination Committee. An additional presentation in the form of a poster or a technical demonstration may be provided for the examination, if the subject requires it.

The student must respond to any suggestions of the members of the Three-Member Examination Committee.

The Three-Member Examination Committee approves and grades the Thesis. Following its approval by the Committee, the Thesis is submitted in electronic form (pdf file) to the library of the Aristotle University of Thessaloniki and must be posted on the website of the BSC.CESE If the judgment of the Thesis is negative, the student can submit his/her thesis incorporating the remarks for its improvement within a period of time set by the Three-Member Committee. Although the second assessment is negative, the student loses the right to award the Degree.

The grading scale of both the Synthesis Thesis and the Thesis is ten-point. The lowest success rate is five and a half (5.5) and the highest is ten (10). The maximum grade must be awarded sparingly and only in exceptional cases, judging the quality, innovation and scientific value of the Thesis. The grade of the Diploma Thesis (Capstone Project) is calculated as the average of the individual marks of the three members of the Examination Committee.

In the calculation of the grade of the Degree, the two papers participate in proportion to the ECTS credits to which each one corresponds.

ARTICLE 6

INTELLECTUAL PROPERTY - PLAGIARISM

Plagiarism is "the use of the idea and text of another scientist/writer without there being a clear identification of the source of the information.

Plagiarism and appropriation of foreign achievements are prohibited and the academic community must act in a way that meets the requirements of the applicable legislation for the protection of intellectual property legislation and patented inventions (Laws 1733/1987, 1883/1990, 2029/1992, 2128/1993, Presidential Decrees 77/1988, 16/1991, 321/2001, Law 8121/1993).

Plagiarism in the writing of any scientific paper and of course during the writing of the synthesis and thesis is an academically, morally and legally reprehensible practice. Therefore, any use of a text as it is or directly translated should be marked by the author of the Thesis in an appropriate way (e.g. "introductory and italic"), relate only to a small number of words within the permitted limits of the Law and be accompanied by a bibliographic reference to the source.

In each Thesis, it should be explicitly stated on the second page that: "I expressly declare that this Thesis, as well as the electronic files and source codes developed or modified in the context of this Thesis, are exclusively products of my personal Thesis, do not infringe any form of intellectual property rights, personality and personal data of third parties, do not contain third party Thesiss/contributions for which permission of the authors/beneficiaries is required and are not products of partial or total copying, and the sources used are limited to

bibliographic references only and meet the rules of scientific citation. The places where I have used ideas, text, archives and/or sources of other authors, are clearly mentioned in the text with the appropriate citation and the relevant reference is included in the bibliographic references section with a full description. I fully assume, individually and personally, all the legal and administrative consequences that may arise in the event that it is proven, over time, that this Thesis or part of it does not belong to me because it is the product of plagiarism."

In recognition of the importance of the integrity of the Thesis, the final text of the papers is checked by the supervisor for signs of plagiarism using appropriate software provided by the institution for this purpose. Any Thesis that overlaps with other sources is reviewed at the suggestion of the supervisor.

The mapping of the sources by the student is not in itself a sufficient condition for the acceptance of the Thesis, as the latter cannot be a general compilation of recognized references, even within the permitted word limits of the law, but a product of personal understanding, interpretation, analysis and collection of data and ideas.

ARTICLE 7

Using Artificial Intelligence (AI) Tools in Assignments

It is forbidden to use AI tools for the composition and writing of the Synthesis Thesis and the Thesis. In particular, the following are prohibited:

1. The use of AI tools to write assignments up to the full-paragraph level is strictly prohibited. Submission of assignments generated entirely by AI is considered plagiarism and can lead to serious consequences, such as rejection of the Thesis and disciplinary sanctions.

2. The Use of AI for the Production of False Sources. Citing non-existent sources or articles through AI is a serious violation of academic ethics and is not acceptable under any circumstances.

3. The Use of AI to produce the structure of Thesis. The structure and composition of the project is the responsibility of the student. The use of AI to structure the assignment without the student's processing is not allowed.

4. The Use of AI for Unedited Content. AI-generated content without substantial editing and input from the student is considered inappropriate.

5. The use of AI without reporting. Not mentioning the use of AI in your Thesis violates transparency rules and can lead to job cancellation.

The use of AI is allowed to correct language and syntax as well as collect information. In case of doubt about the use of AI in specific procedures for the preparation and writing of assignments, the student is invited to consult the supervisor.

*The following is the Appendix with a Template

Title of Your Senior / Capstone Project Here (bold, center aligned)

by

Your First Middle Initial Last Name

Thesis

Submitted in partial fulfillment of the requirements for the

Bachelor of Science in Clean Energy Science and Engineering

Joint Undergraduate Program

Aristotle University

Thessaloniki, Greece

Month Year

Signature Page

Date:

This thesis paper has been examined and approved.

Examination Committee:

_____
(Name typed below line), Chair

_____
(Name typed below line)

_____
(Name typed below line)

Approved:

_____
Director of Studies

Copyright Statement

I explicitly declare that this work, as well as the electronic files and source code developed or modified in the context of this work, is exclusively the product of my own personal effort. It does not infringe upon any form of intellectual property rights, personality rights, or personal data of third parties; it does not contain works or contributions by third parties for which permission from the creators or rights holders is required; and it is not the result of partial or complete copying. The sources used are limited solely to the bibliographic references and comply with the rules of scientific citation.

Any points where I have used ideas, text, files, and/or sources from other authors are clearly indicated in the text with the appropriate citation, and the corresponding reference is included in the bibliography section with full description.

I fully, individually, and personally assume all legal and administrative consequences that may arise in the event that it is proven, at any time, that this work or any part of it does not belong to me because it is the product of plagiarism.

Abstract

Include a concise abstract of the paper. The page is collated within the thesis immediately following the signature page.

Abstracts should be about 100-200 words in length and Times New Roman, 12 point. Consult the APA manual for some tips regarding the qualities of a good abstract. Pay close attention to grammar and spelling; papers with misspellings and typographical errors will be returned as will abstracts that do not follow the format as illustrated in this document.

Acknowledgments

Many students like to acknowledge people who have significantly contributed to their graduate education on this page and are welcome to do so. Remember, however, that Acknowledgments are not part of the scholarly work. Acknowledgments and its page number are not listed in the Table of Contents.

Table of Contents

List of Tables

Notes:
If you've constructed more than one table and plan to place them in the body of your paper, include a list of them here. List the table number, name, and page on which the table can be found (example above).

Not all papers will have a List of Tables (see above).

List of Figures

Notes:
If you've constructed more than one figure and plan to place them in the body of your paper, include a list of them here. List the figure number, name, and page on which the figure can be found (see above).

Not all papers will have a List of Figures.

See the current APA manual for samples and formatting requirements.

Chapter I: Introduction

Problem Statement

Statement of the problem should include the basic difficulty, area of concern, and/or perceived need for the study.

Purpose of the Study

Discuss the goal - emphasize practical outcomes or products.

Research Questions

Write the research questions that drive the study.

Definition of Terms

First term. The definition begins on the same line as the term. Include terms that may not be well understood by a layperson outside of your field. If you use the exact words of a definition - from a dictionary, for instance - indicate that it is quoted material by adding the citation.

Next term. Type its definition, here. Format each new term just as you would any new paragraph.

Next term. Definition ……..

Assumptions and Limitations of the Study

Discuss any assumptions and the study's limitations here.

Overview

Briefly outline the remainder of the paper and what is to come in the next chapter. Use the appropriate tense (past, present, or future) based on the context of the material being written.

Optional Chapter II: Literature Review

Introduction

The format of each heading and sub-heading depends upon its level according to the current APA manual.

Next Heading

The format of each heading and sub-heading depends upon its level according to the current APA manual.

Next Heading

Add as many headings as needed.

Summary

Write the chapter summary here.

Chapter III: Methodology

Introduction

Begin with an introduction. Some suggestions include reiterating the statement of the problem and briefly discussing what this chapter will include. Sections to be addressed might include subject selection and description, instrumentation, data collection procedures, data analysis, and limitations.

Research Question(s)

State the research question or questions.

Research Design and Procedures

Describe the research design and procedure.

Population and Sample

Discuss the sample and population. Include how the data was collected.

Instrumentation

Talk about the instruments used.

Data Analysis Procedures

Discuss the statistical or other data analysis procedures used.

Limitations

Discuss methodological limitations or procedural weaknesses.

Summary

Summarize the main points of the methodology.

Chapter IV: Results

Introduction

Start with another introduction, you might briefly reiterate the purpose of the study and how it was conducted, e.g. a survey was given... Your sub-headings for this chapter also will vary considerably: some people use each question as a sub-heading and some don't. If you do use each question as a sub-heading, write out the question rather than just "Question 1." The purpose is to provide the reader with *at a glance* information about the nature and scope of your paper.

Data Analysis

Use tables when appropriate, but don't overuse them or discuss the whole table in text. Discuss the high points in text, providing the table for further details. All tables should conform to the APA style manual. Tables are different than *figures*, name and refer to them appropriately. Information about *figures* can be found in the current APA manual.

Summary

Write a summary of the results.

Chapter V: Summary, Conclusions, and Recommendations

Introduction

Again, start with an introduction. Summarize what has happened in your paper so far. This chapter will also vary considerably in headings and organization; what follows is a suggestion or possibility.

Summary of the Results

State the results.

Conclusions

Discuss the high points of your findings. This discussion should include a thorough discussion of the research question or questions, literature review, and the results. There should be a relationship to the literature review. Did your study correlate with previous research or did you find something different?

Recommendations

Recommend some further research or a change in practices.

References

Make sure that everything you cite in text is also in the reference list and vice versa. Below are examples of a journal and a book entry. Consult the current APA manual for additional examples. **Notice that entries use a hanging indent set at ½ inch, are single spaced, and have a blank line between each entry.**

Clough, M. (1992). Research is required reading. *The Science Teacher*, *59*(7), 36-39.

Cochran-Smith, M. (2001). Higher standards for prospective teachers. *Journal of Teacher Education, 52*(3), 179-181.

Appendix A: Assessment Activity

Place materials into an appendix if it would be distracting to include it right in the body of your document. Each appendix begins on a new page and follows the same general formatting as the body of the document. See the current APA manual for specifics.

Appendix B: Assessment Rubric

Place materials into an appendix if it would be distracting to include it right in the body of your document. Each appendix begins on a new page and follows the same general formatting as the body of the document. See the current APA manual for specifics.