DIPARTIMENTO DI INGEGNERIA CIVILE, EDILE E AMBIENTALE
DEPARTMENT OF CIVIL, ENVIRONMENTAL AND ARCHITECTURAL ENGINEERING

UNIVERSITÀ DEGLI STUDI DI PADOVA

Student Guide - How to compile the study plan

Department of Civil, Environmental and Architectural Engineering (DICEA)

Master degree in Mathematical Engineering

Index

Introduction

This study guide was created to support students in filling in their study plan via the Uniweb platform. The following guide is divided into different sections, explaining each step to complete the procedure. Please note that the procedure to compile the study plan opens ***in late October and closes on the 30th September each year (end of academic year).*** Once the student registers for graduation, the study plan cannot be further modified. Keep in mind to check the study plan before following the procedure to sign up for graduation.

The Master degree in Mathematical Engineering contains **two study tracks:**

- **Mathematical Modelling for Engineering and Science**
- **Financial Engineering**

Please be aware that this guide is for students of the study track “Mathematical Modelling for Engineering and Science” to demonstrate the procedure for students to fill in the study plan. Students can follow the procedure for the first year of their studies.

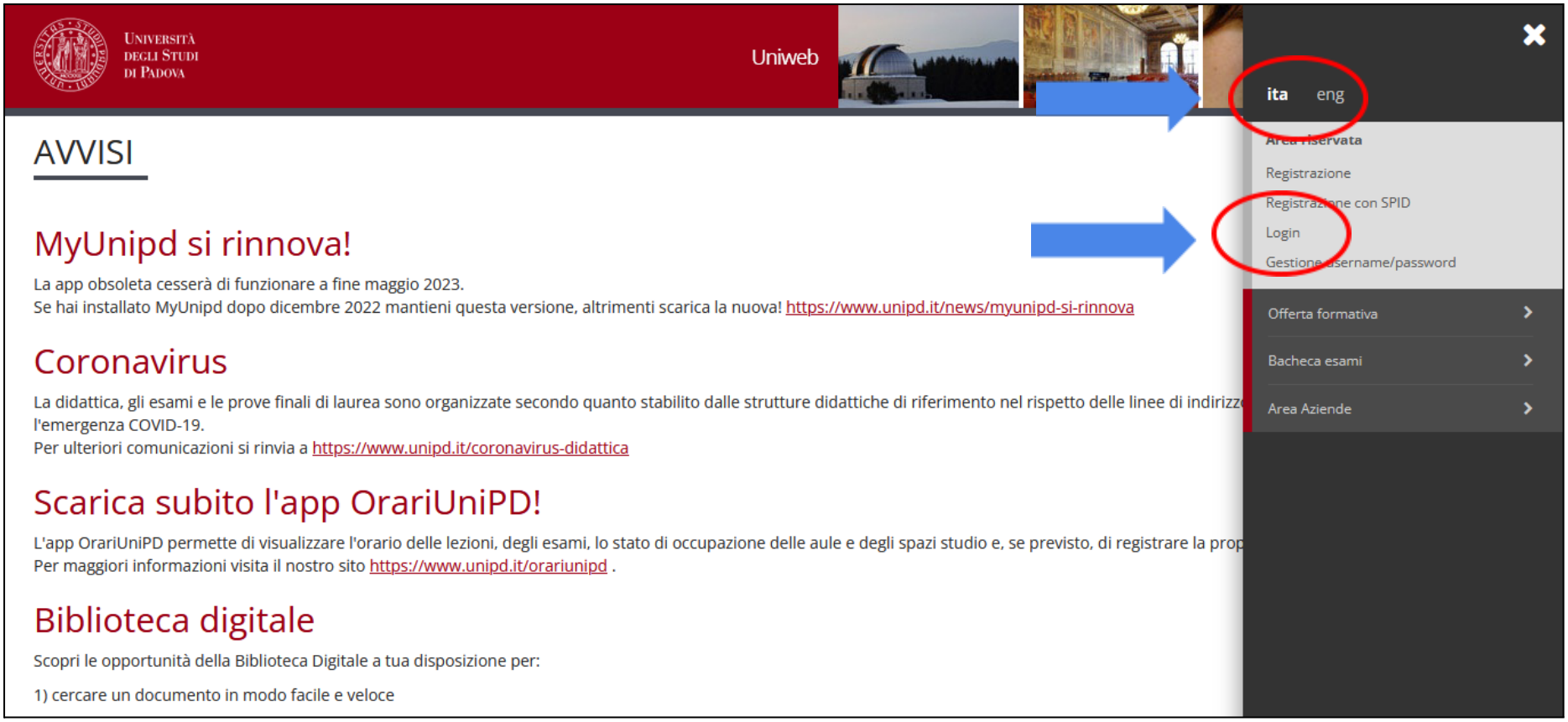
It is essential to compile the study plan to sign up for exams. The exam sessions available can be found on the Uniweb platform, clicking on **Home → Exam sessions.** Only exams which are included in your study plan will be shown in the “Exam sessions” section. An overview of the exams already undertaken can be viewed in the exam booklet, by clicking on **Home → Booklet.**

In addition, please note that in the Italian University systems, credits are indicated as **CFU (crediti formativi universitari).**

1. Log-in to Uniweb

As a first step, the student has to access the Uniweb platform **https://uniweb.unipd.it/Root.do.** In the right corner, on the "**Menu"** button, the student can change the language to English and access the platform via the SSO portal.

Step 1 Access the Uniweb webpage



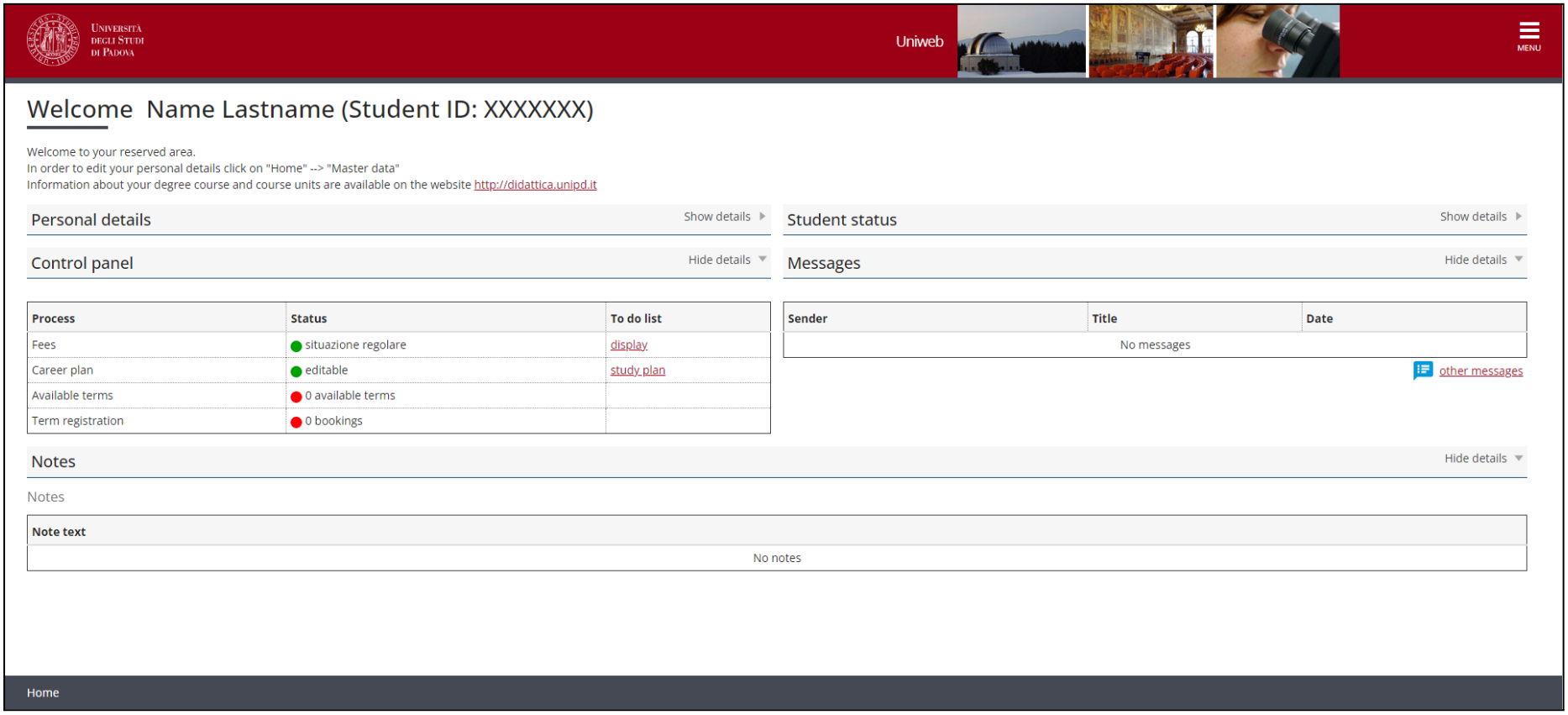
Step 2 Click on the Menu of the Uniweb page and on "Login"

Click on **"Login"** to be directed to the **Single Sign On (SSO).**

On the web page for the Single Sign On, if you wish to change the language, click on the icons on the upper right hand corner. Then proceed by entering the University credentials: **“name.lastname”** and select **“@studenti.unipd.it”.** Enter the password and click **“Login”** to connect to the Uniweb account.

Step 3 Log in with the SSO to the Uniweb account

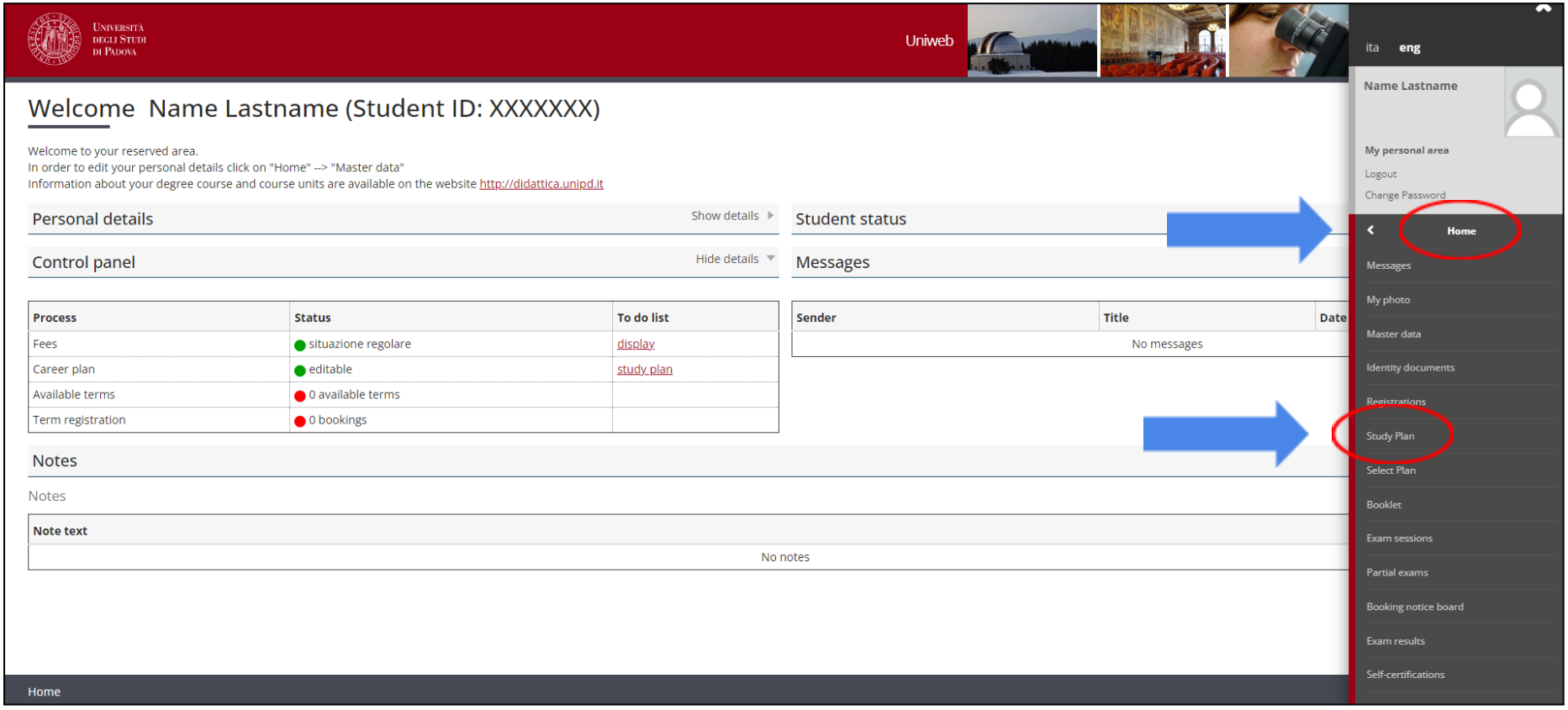
The home page of the Uniweb profile shows an overview of the student's academic career, the status of the study fees, the study plan and exams terms available.



Overview Uniweb profile

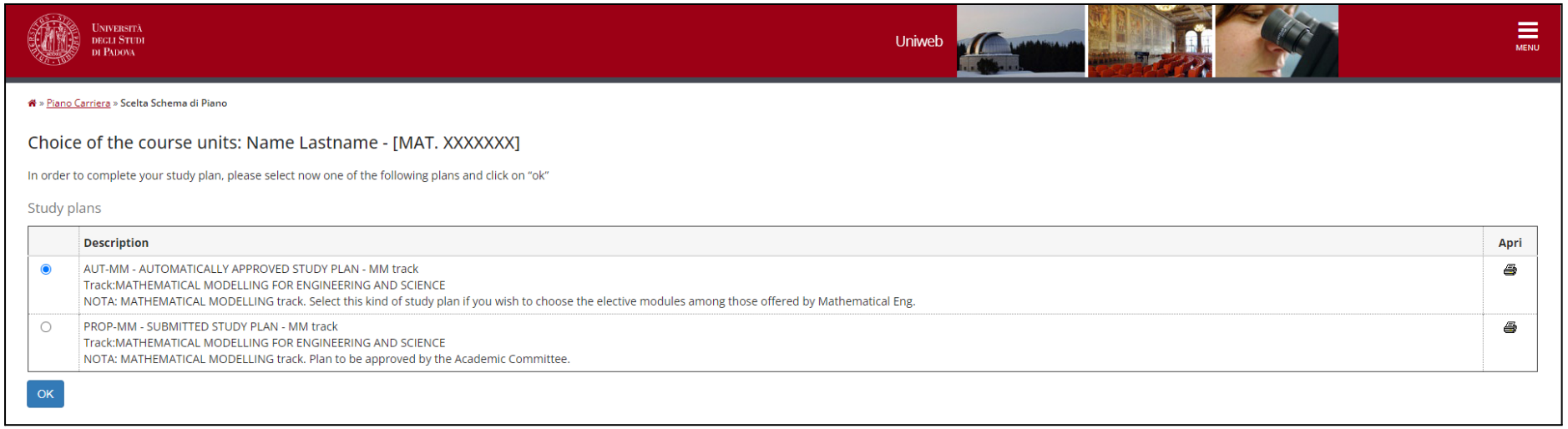
2. Compile your study plan

Inside of the Uniweb profile, click on **“Menu”** on the upper right hand corner, go to **“Home”** and then select **“Study Plan”** to create a new study plan.



Step 4 Click on Study Plan to create your new plan

Once there, click on **“New Plan”** to start the process.



Overview of the two types of Study Plans available

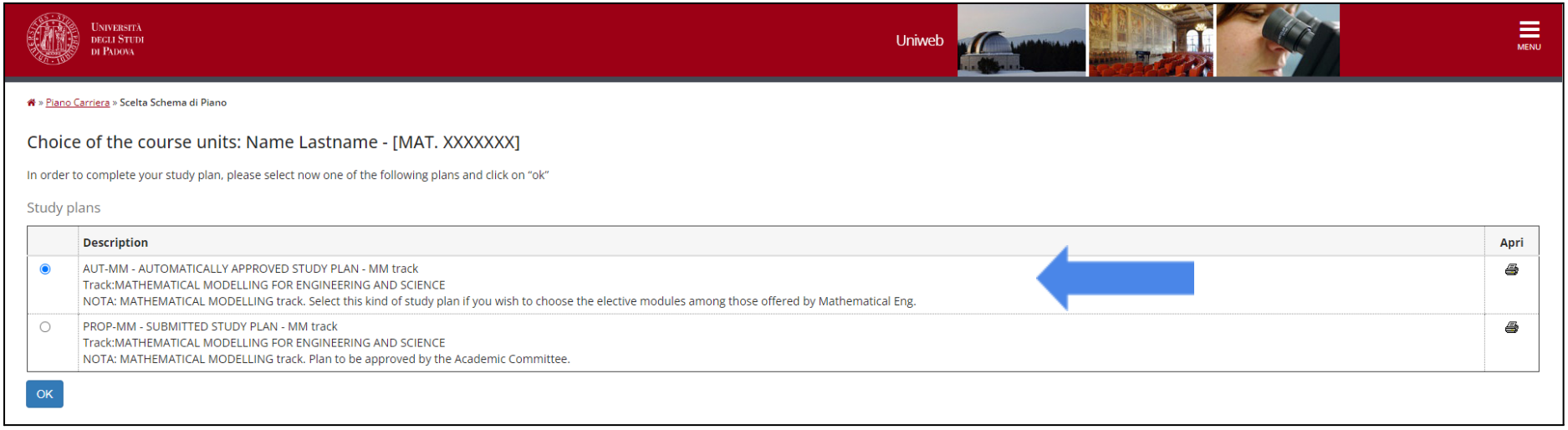
There are two different types of study plans available to be selected. The difference between these two is described below:

- **AUT - Automatically Approved Study Plan:** This type of study plan is **recommended to students.** It contains all the mandatory courses foreseen for the specific study track selected in the Master Degree in Mathematical Engineering - study track “Mathematical Modelling for Engineering and Science”. It allows the selection of two elective courses for each 6 CFU and one course of 9 CFU of the course offer of the Master degree in Mathematical Engineering for the second academic year.

- **PROP - Submitted Study Plan:** This type of Study Plan also contains all mandatory courses of the study track “Mathematical Modelling for Engineering and Science”. In regards to the selection of the 12 CFU of elective courses and the 9 CFU of free choice, you not only can choose courses from the Master degree in Mathematical Engineering at the ICEA Department but also from all other Departments of the University of Padua (see page 19). Before choosing this option, be aware that elective courses from other Departments are subject to approval by the Course Committee and that elective courses should be complementary to your degree.

2.1 AUT-MM - Automatically Approved Study Plan - MM track

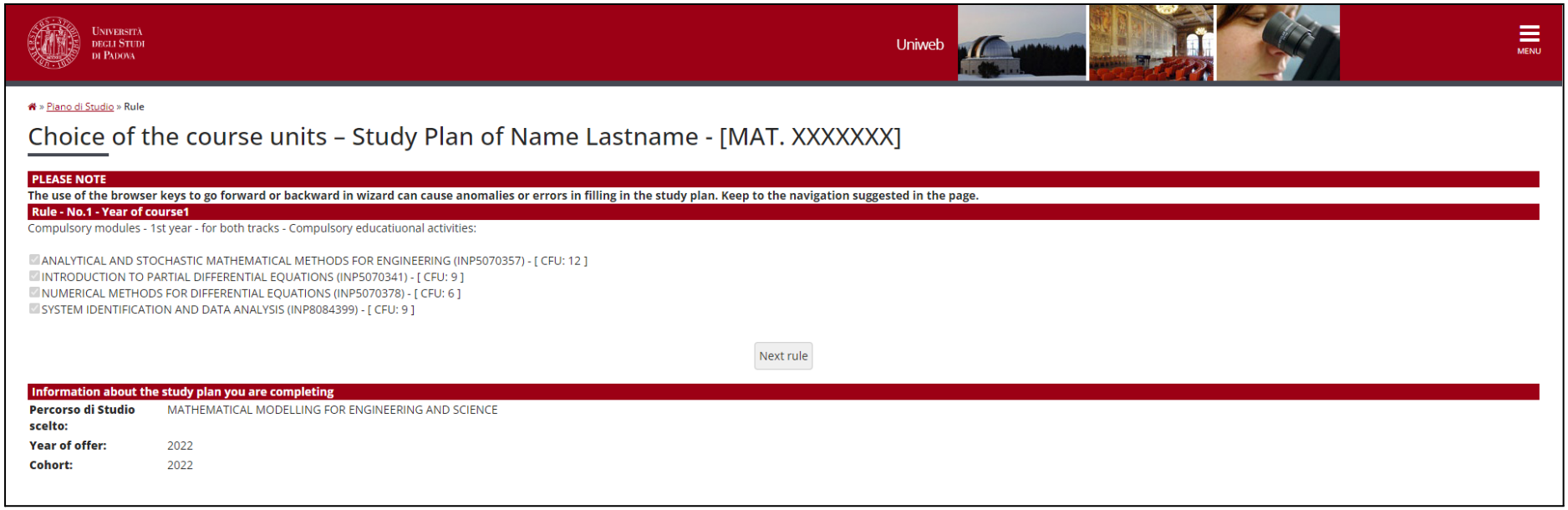
As explained above, the AUT - Automatically Approved Study Plan **is recommended** to students. The instructions to compile this type of study plan are described below.



Step 5 Select AUT – Automatically Approved Study Plan

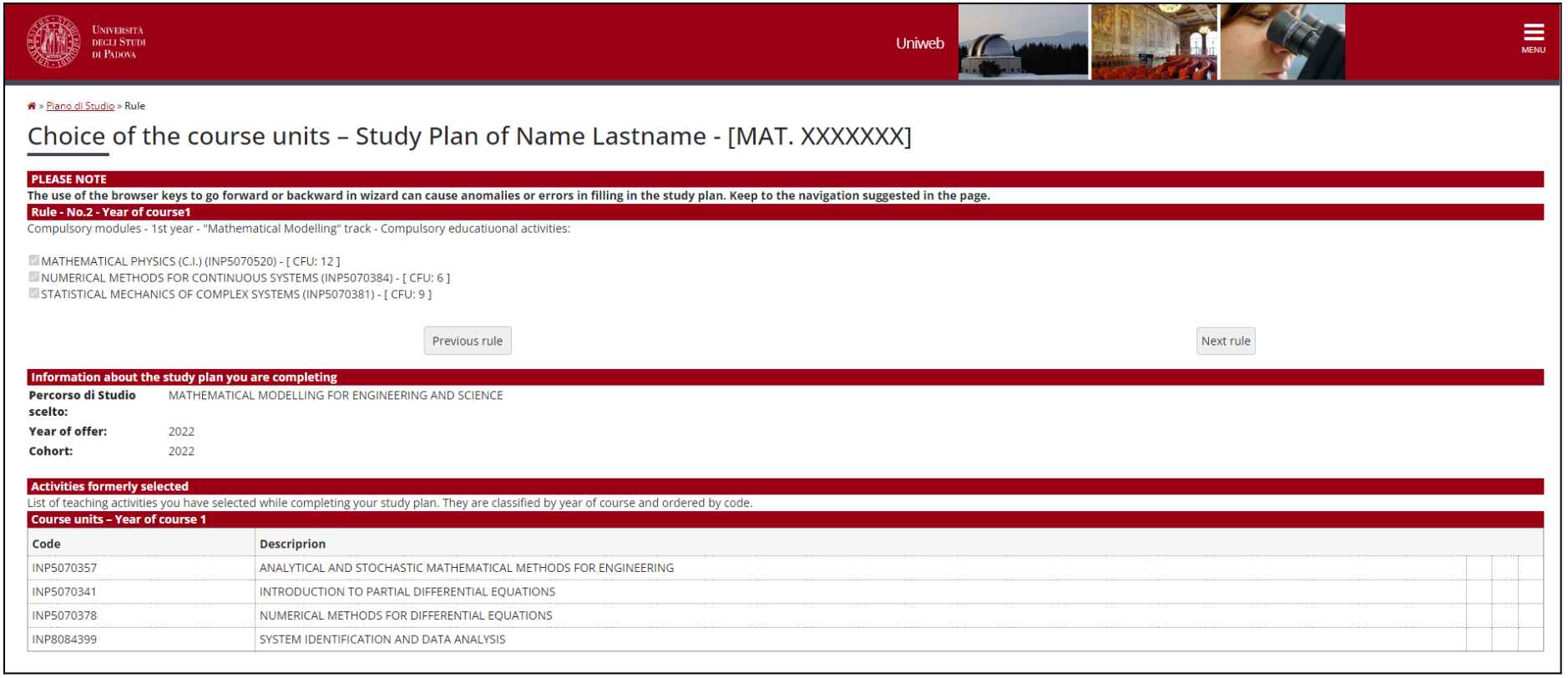
Select the Automatic Plan and proceed by clicking on **"Ok".**

A notice will come up on the screen, continue by clicking on **"Proceed to complete your study plan".** Once there, you can click on **"New Plan"** to start the process.



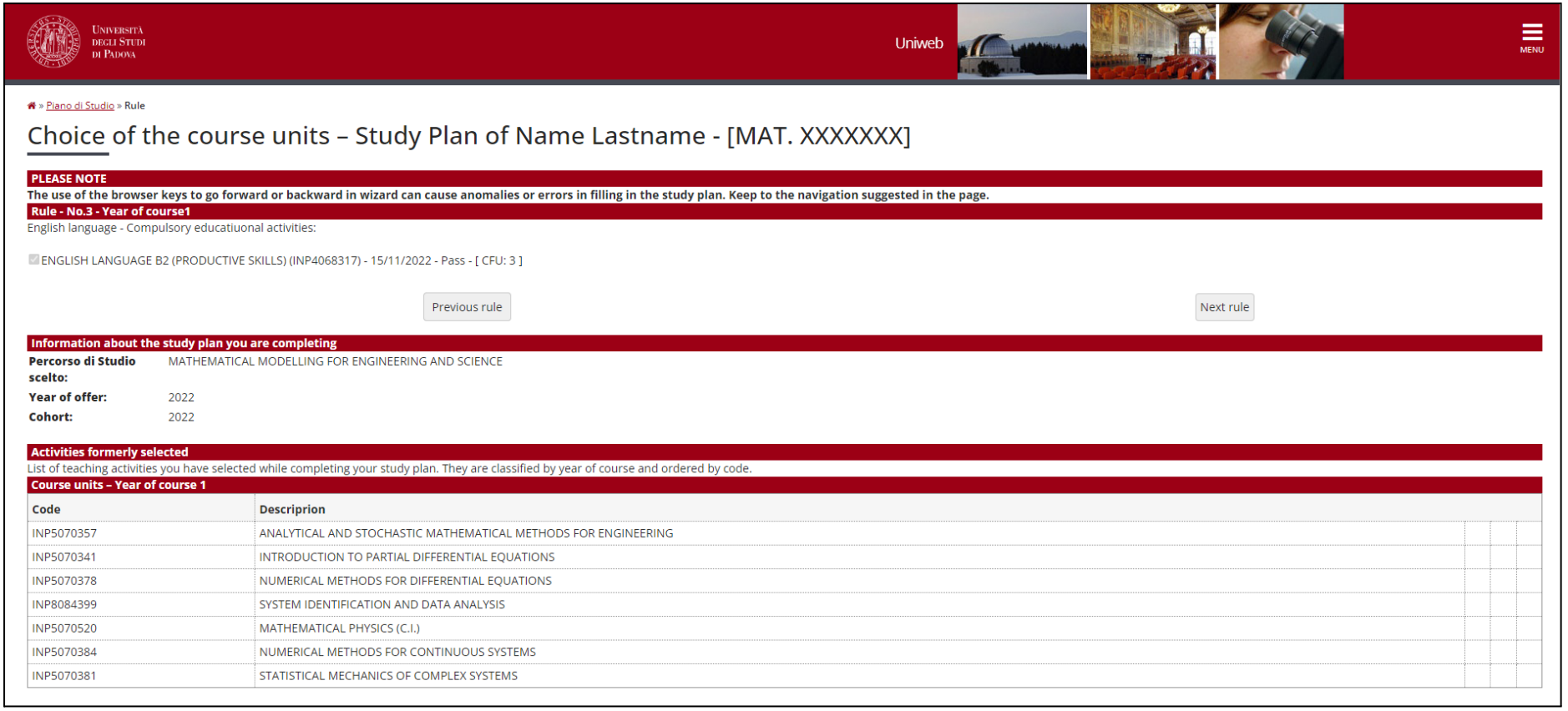
Step 6 Select mandatory courses of the 1st academic year (1)

First, the mandatory courses for the **1st academic year** will be listed. Since these courses are obligatory, click on **"Next rule"** to add them to the study plan.



Step 7 Selection mandatory courses of the 1st academic year (2)

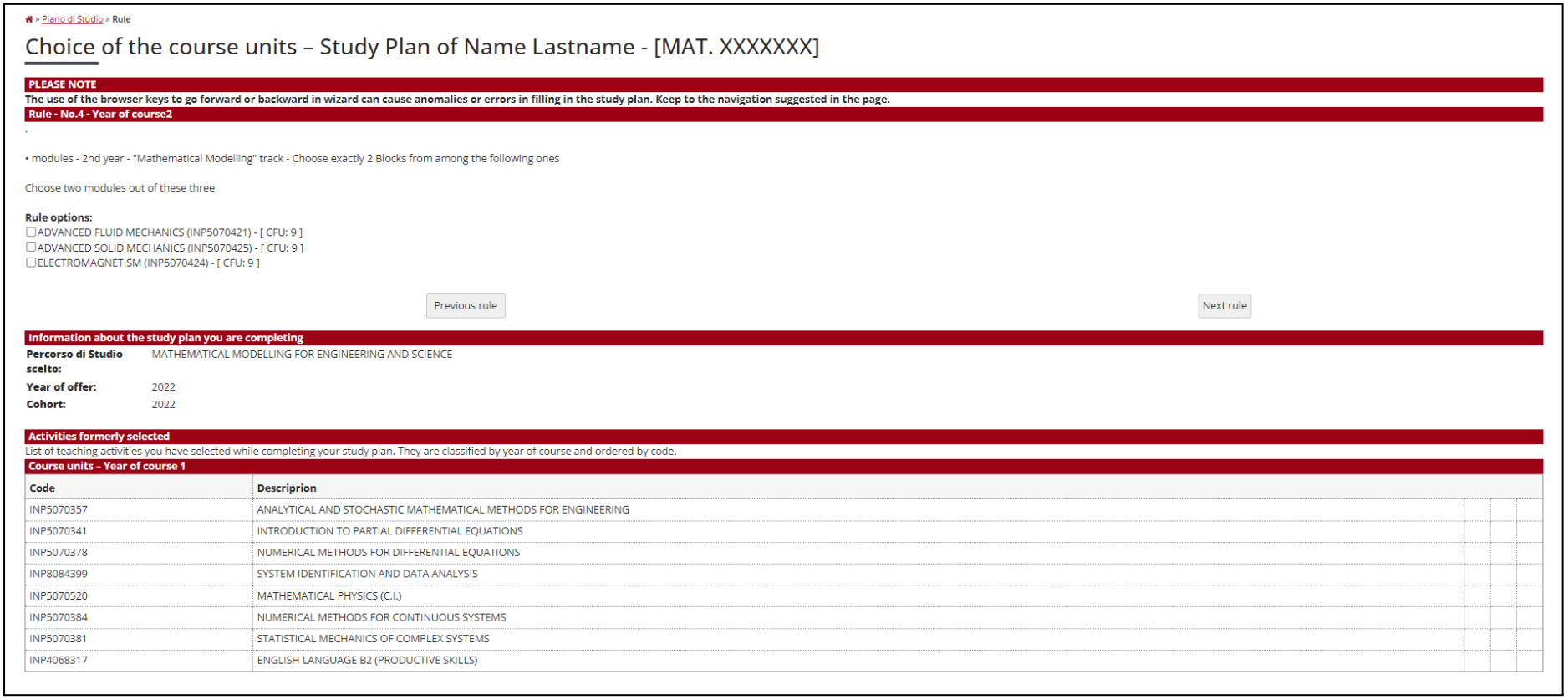
On this page, follow the procedure as previously by clicking on **“Next rule”** to add the mandatory courses.



Step 8 Selection mandatory Italian language *qualification*

On this page, the **English Language course,** mandatory for all students of the Master Degree in Mathematical Engineering, can be added to the study plan. In order to fulfill this requirement, an English test with the University Language Centre (CLA) can be taken or the recognition of a valid English certificate can be requested. More information can be found **here.** Click on **"Next rule"** to proceed with the study plan compilation.

In this step, all mandatory courses of the **2nd academic year** are listed. You will be able to choose two courses out of the three listed. Click on **“Next rule”** to add the ones selected to your study plan.



» Piano di Studio » Rule

Choice of the course units – Study Plan of Name Lastname - [MAT. XXXXXXX]

PLEASE NOTE

The use of the browser keys to go forward or backward in wizard can cause anomalies or errors in filling in the study plan. Keep to the navigation suggested in the page.

Rule - No.4 - Year of course2

• modules - 2nd year - "Mathematical Modelling" track - Choose exactly 2 Blocks from among the following ones

Choose two modules out of these three

Rule options:

☐ ADVANCED FLUID MECHANICS (INP5070421) - [CFU: 9]
☐ ADVANCED SOLID MECHANICS (INP5070425) - [CFU: 9]
☐ ELECTROMAGNETISM (INP5070424) - [CFU: 9]

Previous rule Next rule

Information about the study plan you are completing

Percorso di Studio scelto: MATHEMATICAL MODELLING FOR ENGINEERING AND SCIENCE
Year of offer: 2022
Cohort: 2022

Activities formerly selected

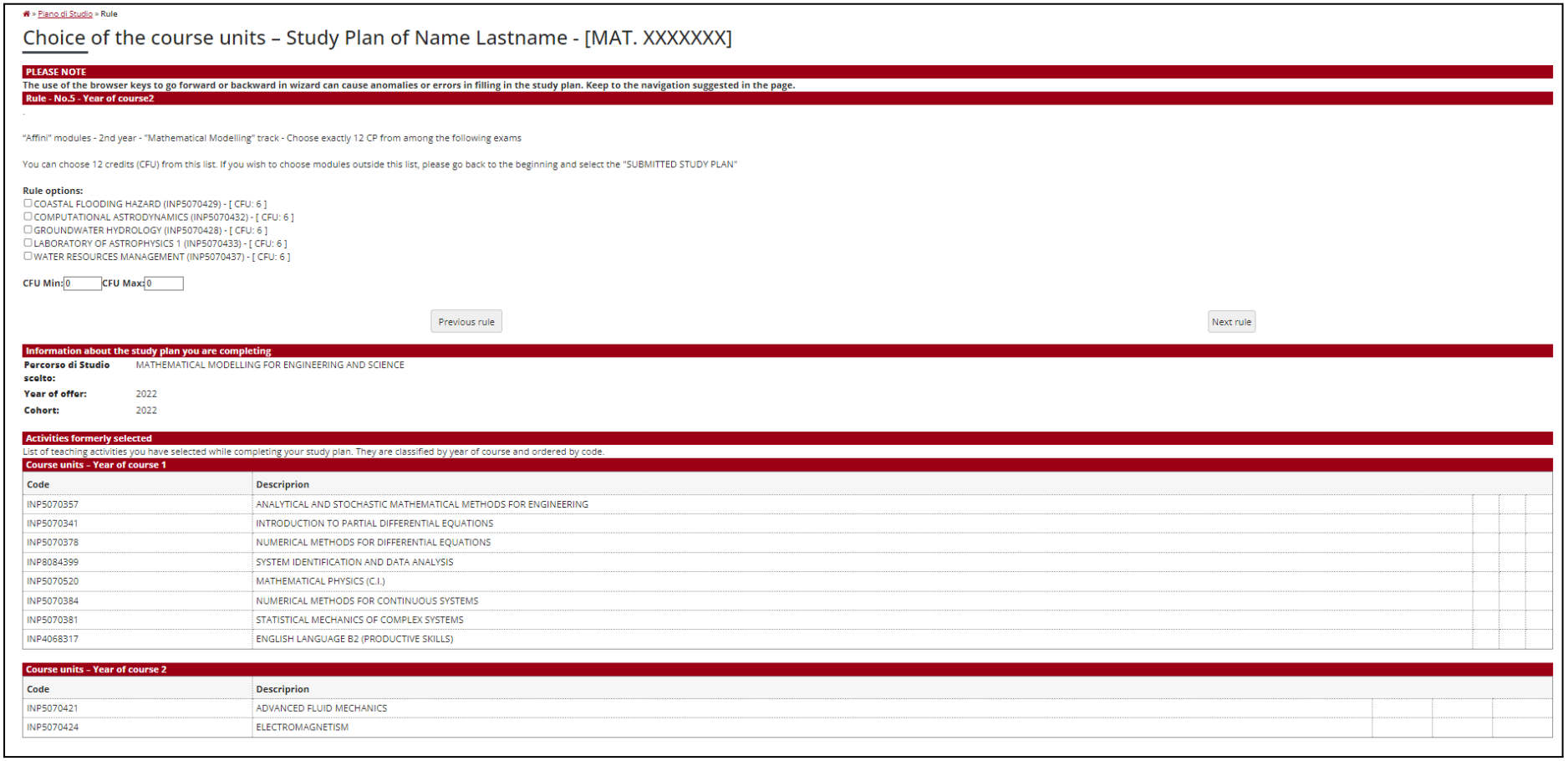
List of teaching activities you have selected while completing your study plan. They are classified by year of course and ordered by code.

Course units – Year of course 1

Code	Descriprion
INP5070357	ANALYTICAL AND STOCHASTIC MATHEMATICAL METHODS FOR ENGINEERING
INP5070341	INTRODUCTION TO PARTIAL DIFFERENTIAL EQUATIONS
INP5070378	NUMERICAL METHODS FOR DIFFERENTIAL EQUATIONS
INP8084399	SYSTEM IDENTIFICATION AND DATA ANALYSIS
INP5070520	MATHEMATICAL PHYSICS (C.I.)
INP5070384	NUMERICAL METHODS FOR CONTINUOUS SYSTEMS
INP5070381	STATISTICAL MECHANICS OF COMPLEX SYSTEMS
INP4068317	ENGLISH LANGUAGE B2 (PRODUCTIVE SKILLS)

Step 9 Selection mandatory courses 2nd academic year

Before finalizing the study plan, the elective courses have to be chosen. In total, **12 CFU** are available. For the study plan **“AUT-MM - Automatically Approved Study Plan - MM track”,** the courses can be chosen from the list shown in Uniweb. Once selected, click on **“Next rule”** to finalize the procedure.



» Piano di Studio » Rule

Choice of the course units – Study Plan of Name Lastname - [MAT. XXXXXXX]

PLEASE NOTE

The use of the browser keys to go forward or backward in wizard can cause anomalies or errors in filling in the study plan. Keep to the navigation suggested in the page.

Rule - No.5 - Year of course2

"Affini" modules - 2nd year - "Mathematical Modelling" track - Choose exactly 12 CP from among the following exams

You can choose 12 credits (CFU) from this list. If you wish to choose modules outside this list, please go back to the beginning and select the "SUBMITTED STUDY PLAN"

Rule options:

- ☐ COASTAL FLOODING HAZARD (INP5070429) - [CFU: 6]
- ☐ COMPUTATIONAL ASTRODYNAMICS (INP5070432) - [CFU: 6]
- ☐ GROUNDWATER HYDROLOGY (INP5070428) - [CFU: 6]
- ☐ LABORATORY OF ASTROPHYSICS 1 (INP5070433) - [CFU: 6]
- ☐ WATER RESOURCES MANAGEMENT (INP5070437) - [CFU: 6]

CFU Min: 0 **CFU Max:** 0

Previous rule Next rule

Information about the study plan you are completing

Percorso di Studio scelto: MATHEMATICAL MODELLING FOR ENGINEERING AND SCIENCE
Year of offer: 2022
Cohort: 2022

Activities formerly selected

List of teaching activities you have selected while completing your study plan. They are classified by year of course and ordered by code.

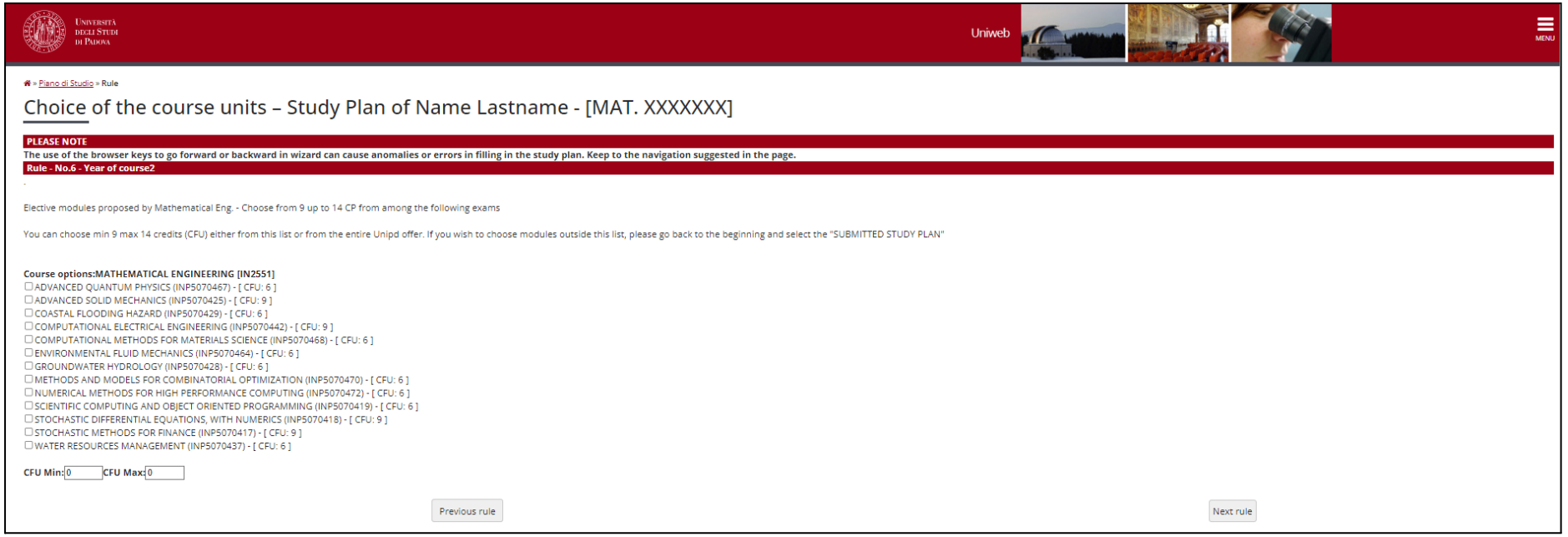
Course units – Year of course 1

Code	Descriprion
INP5070357	ANALYTICAL AND STOCHASTIC MATHEMATICAL METHODS FOR ENGINEERING
INP5070341	INTRODUCTION TO PARTIAL DIFFERENTIAL EQUATIONS
INP5070378	NUMERICAL METHODS FOR DIFFERENTIAL EQUATIONS
INP8084399	SYSTEM IDENTIFICATION AND DATA ANALYSIS
INP5070520	MATHEMATICAL PHYSICS (C.I.)
INP5070384	NUMERICAL METHODS FOR CONTINUOUS SYSTEMS
INP5070381	STATISTICAL MECHANICS OF COMPLEX SYSTEMS
INP4068317	ENGLISH LANGUAGE B2 (PRODUCTIVE SKILLS)

Course units – Year of course 2

Code	Descriprion
INP5070421	ADVANCED FLUID MECHANICS
INP5070424	ELECTROMAGNETISM

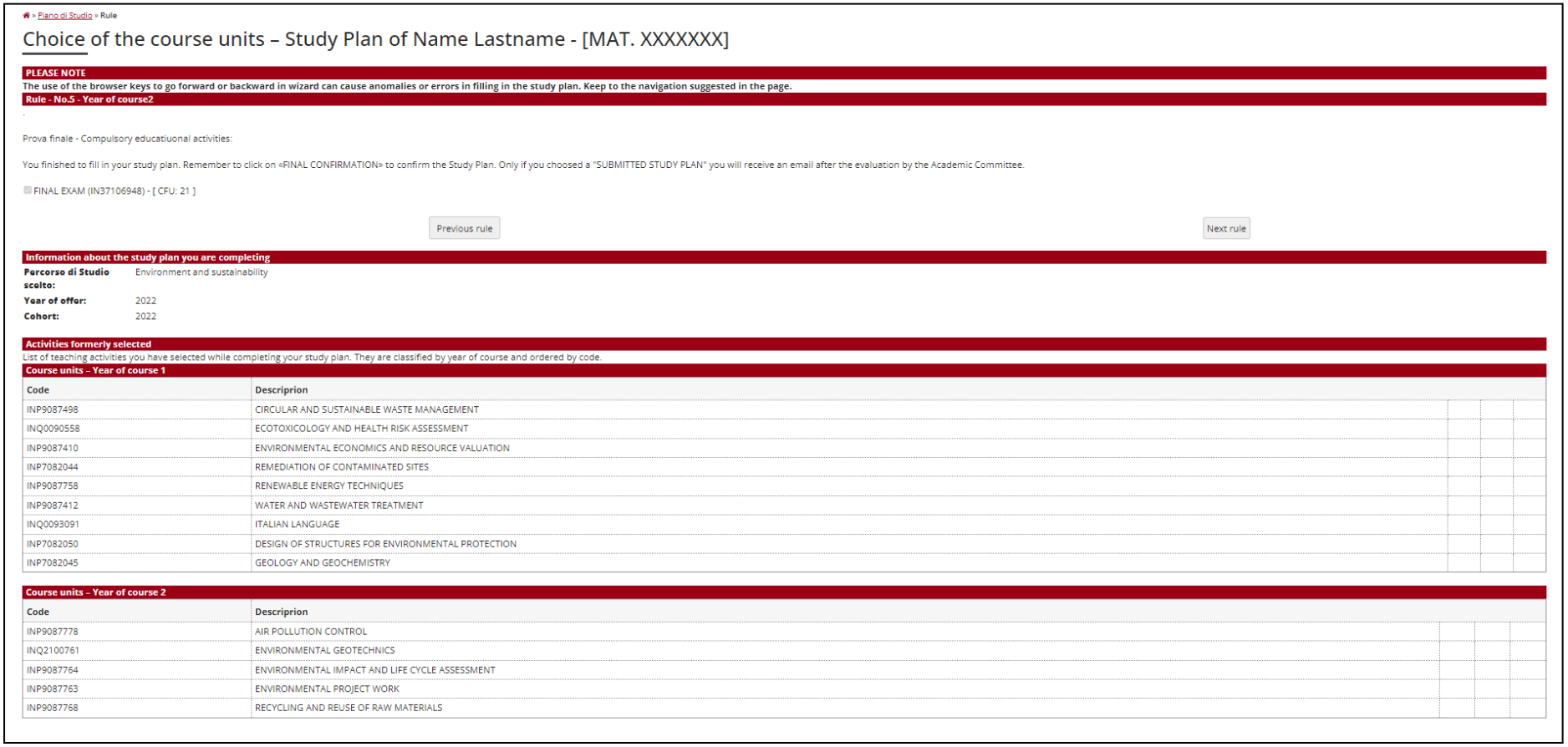
Step 10 Choose elective courses of the list indicated above



Step 11 Choose 9 CFU as a free choice

For the **9 CFU of free choice** you have available, you can select among the following courses shown above. Please note that you need as a minimum 9 CFU and can register as a maximum 14 CFU, for example if you choose two courses of 6 CFU, you will have 12 CFU in total. Once you have selected the courses, continue to the next rule.

As a last step, the **“Final exam”**, which is your thesis project, has to be added to the study plan.



» Piano di Studio » Rule

Choice of the course units – Study Plan of Name Lastname - [MAT. XXXXXXX]

PLEASE NOTE

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Rule - No.5 - Year of course2

Prova finale - Compulsory educatiuonal activities:

You finished to fill in your study plan. Remember to click on «FINAL CONFIRMATION» to confirm the Study Plan. Only if you choosed a "SUBMITTED STUDY PLAN" you will receive an email after the evaluation by the Academic Committee.

FINAL EXAM (IN37106948) - [CFU: 21]

Previous rule Next rule

Information about the study plan you are completing

Percorso di Studio scelto: Environment and sustainability

Year of offer: 2022

Cohort: 2022

Activities formerly selected

List of teaching activities you have selected while completing your study plan. They are classified by year of course and ordered by code.

Course units – Year of course 1

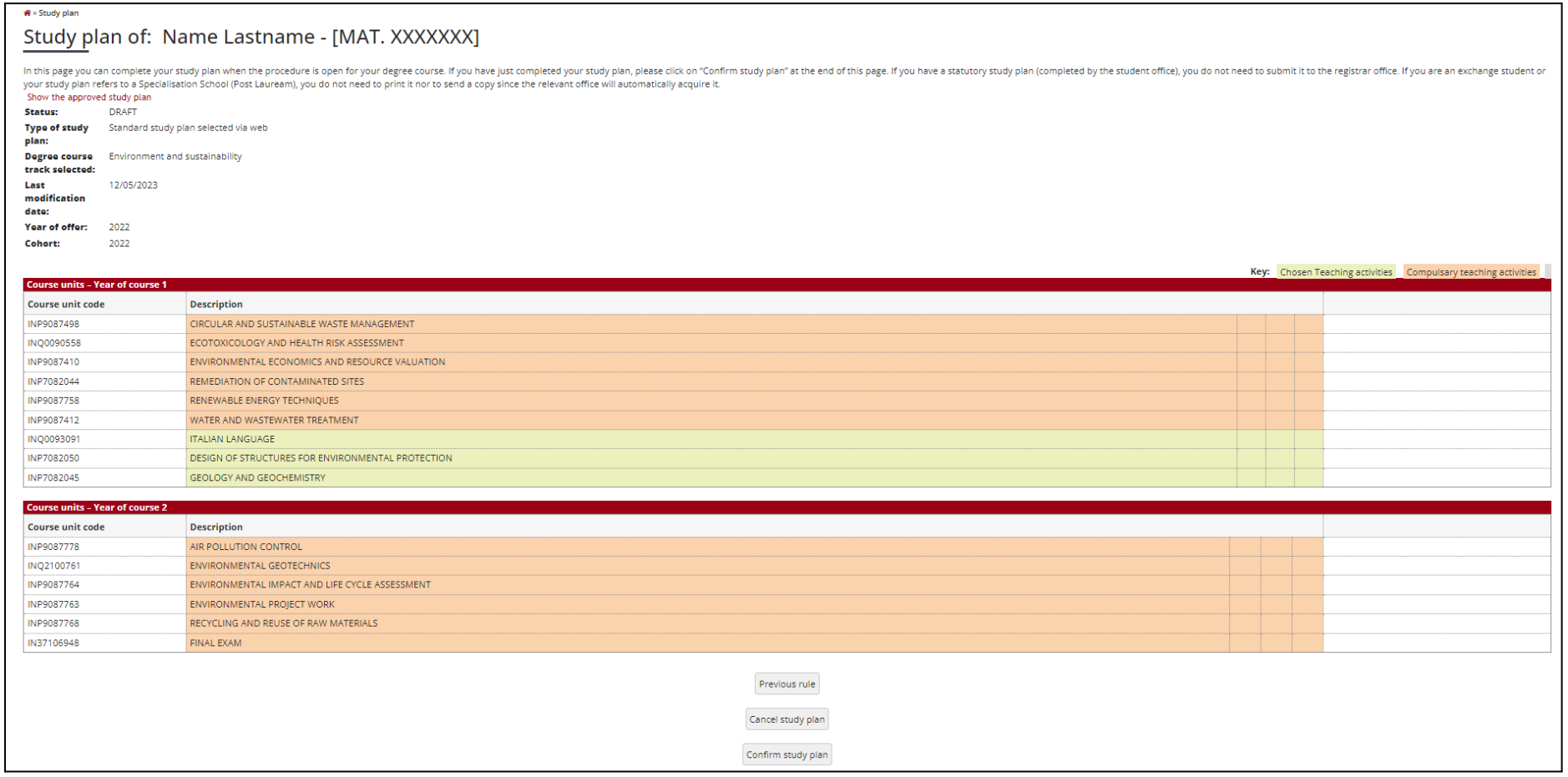
Code	Descriprion
INP9087498	CIRCULAR AND SUSTAINABLE WASTE MANAGEMENT
INQ0090558	ECOTOXICOLOGY AND HEALTH RISK ASSESSMENT
INP9087410	ENVIRONMENTAL ECONOMICS AND RESOURCE VALUATION
INP7082044	REMEDIATION OF CONTAMINATED SITES
INP9087758	RENEWABLE ENERGY TECHNIQUES
INP9087412	WATER AND WASTEWATER TREATMENT
INQ0093091	ITALIAN LANGUAGE
INP7082050	DESIGN OF STRUCTURES FOR ENVIRONMENTAL PROTECTION
INP7082045	GEOLOGY AND GEOCHEMISTRY

Course units – Year of course 2

Code	Descriprion
INP9087778	AIR POLLUTION CONTROL
INQ2100761	ENVIRONMENTAL GEOTECHNICS
INP9087764	ENVIRONMENTAL IMPACT AND LIFE CYCLE ASSESSMENT
INP9087763	ENVIRONMENTAL PROJECT WORK
INP9087768	RECYCLING AND REUSE OF RAW MATERIALS

Step 10 Add final project to your study plan

Please note that at the bottom of each page, the courses previously added are listed to provide an overview of the study plan.



» Study plan

Study plan of: Name Lastname - [MAT. XXXXXXX]

In this page you can complete your study plan when the procedure is open for your degree course. If you have just completed your study plan, please click on "Confirm study plan" at the end of this page. If you have a statutory study plan (completed by the student office), you do not need to submit it to the registrar office. If you are an exchange student or your study plan refers to a Specialisation School (Post Lauream), you do not need to print it nor to send a copy since the relevant office will automatically acquire it.

Show the approved study plan

Status: DRAFT
Type of study plan: Standard study plan selected via web
Degree course track selected: Environment and sustainability
Last modification date: 12/05/2023
Year of offer: 2022
Cohort: 2022

Key: Chosen Teaching activities | Compulsary teaching activities

Course units - Year of course 1

Course unit code	Description
INP9087498	CIRCULAR AND SUSTAINABLE WASTE MANAGEMENT
INQ0090558	ECOTOXICOLOGY AND HEALTH RISK ASSESSMENT
INP9087410	ENVIRONMENTAL ECONOMICS AND RESOURCE VALUATION
INP7082044	REMEDIATION OF CONTAMINATED SITES
INP9087758	RENEWABLE ENERGY TECHNIQUES
INP9087412	WATER AND WASTEWATER TREATMENT
INQ0093091	ITALIAN LANGUAGE
INP7082050	DESIGN OF STRUCTURES FOR ENVIRONMENTAL PROTECTION
INP7082045	GEOLOGY AND GEOCHEMISTRY

Course units - Year of course 2

Course unit code	Description
INP9087778	AIR POLLUTION CONTROL
INQ2100761	ENVIRONMENTAL GEOTECHNICS
INP9087764	ENVIRONMENTAL IMPACT AND LIFE CYCLE ASSESSMENT
INP9087763	ENVIRONMENTAL PROJECT WORK
INP9087768	RECYCLING AND REUSE OF RAW MATERIALS
IN37106948	FINAL EXAM

Previous rule

Cancel study plan

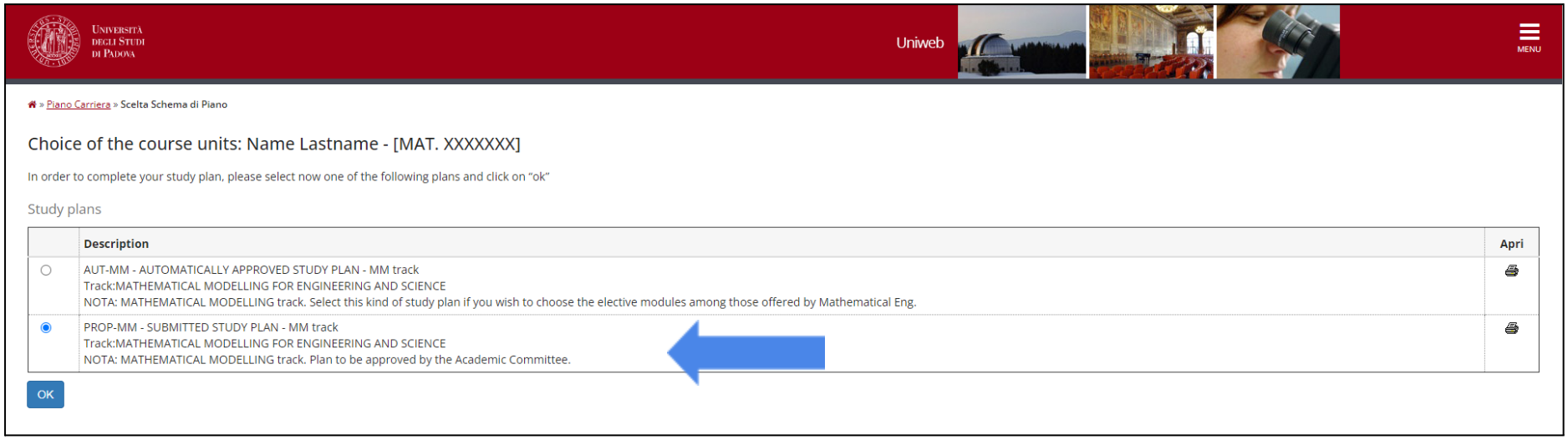
Confirm study plan

Step 11 Confirm study plan

As a last step, the courses selected during the procedure are shown, indicating compulsory and selected teaching activities. In order to conclude the procedure, select **"Confirm study plan".** This step is essential to insert your study plan in Uniweb and be able to register for exams.

2.2 PROP-MM - SUBMITTED STUDY PLAN - MM track

In order to fill in the **PROP-MM - SUBMITTED STUDY PLAN - MM track,** select the second option, when starting the procedure.



Step 5 Select PROP-MM – Submitted Study Plan – MM track

Please note that steps 6 to 9 of the **AUT-MM - Automatically Approved Study Plan - track MM** are the same as for the **PROP-MM - Submitted Study Plan - MM track.** Thus, you can follow these steps as outlined in the previous steps (see pages 11-14).

The study plan for PROP-MM - Submitted Study Plan - MM track differs from the AUT-MM - Automatically Approved Study Plan - track MM regarding the choice of elective courses/courses of free choice. While the AUT-MM - Automatically Approved Study Plan - track MM proposes a course offer for the 12 CFU elective courses and

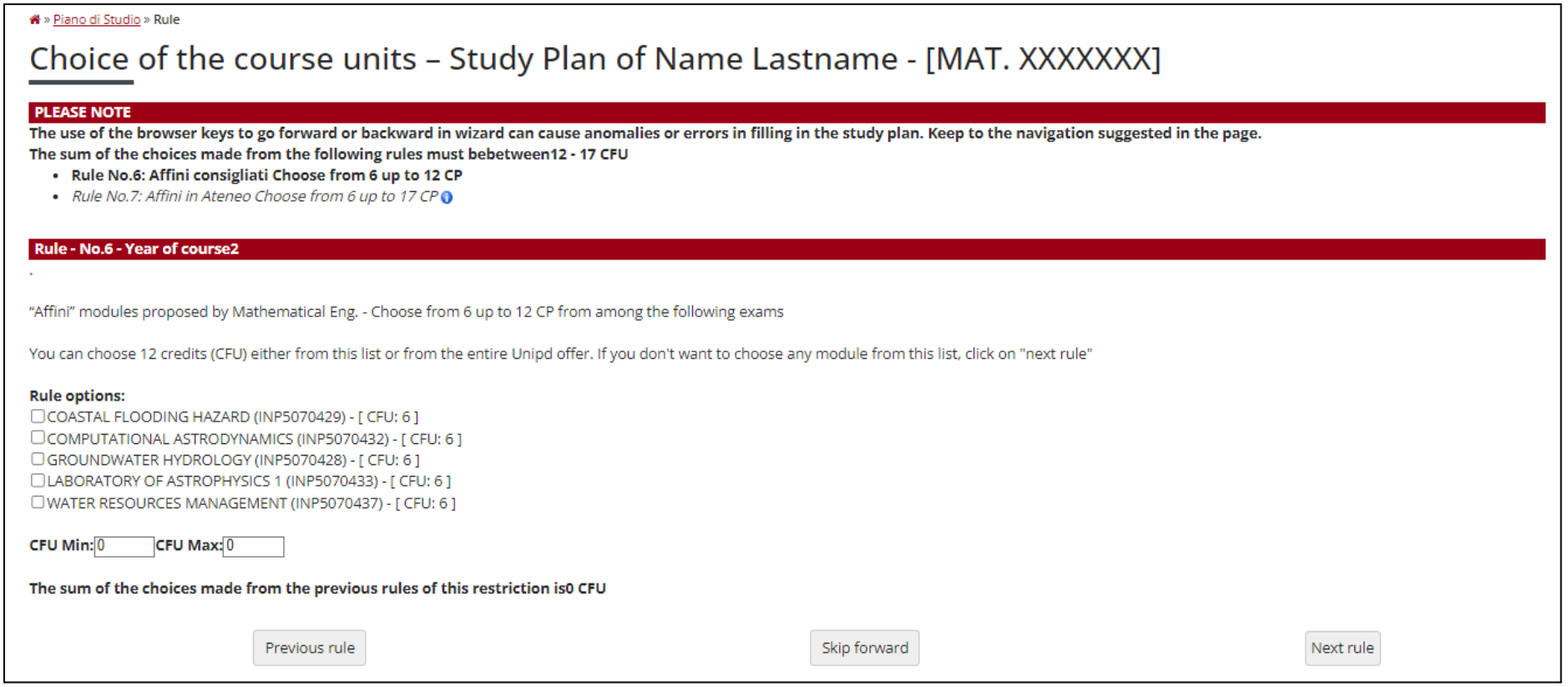
9 CFU of free choice offered **only by the Master Degree,** the PROP-MM - Submitted Study Plan - MM track allows choosing elective **courses offered at different Departments other than the ICEA.**

Once at **step 10,** the procedure will suggest selecting the **elective courses (12 CFU).**

There are two options available:

Option 1: Choose **one course suggested in the list** (step 10) and then proceed by clicking on **“Next rule”** to **choose a second elective course** from the **academic offer of degree courses of other Departments of the University of Padua (step 11).**

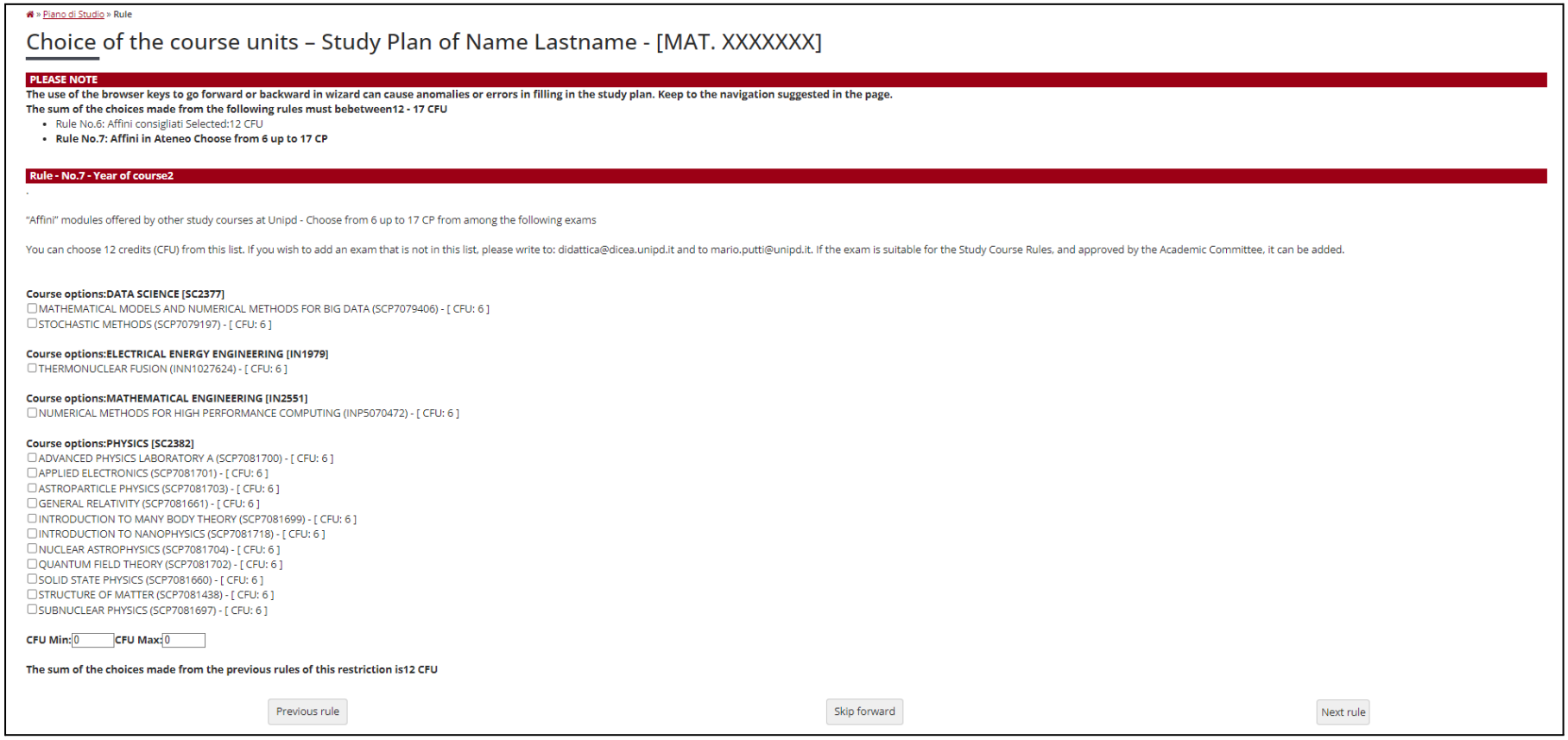
Option 2: Select **both courses from the academic offer of degree programmes of other Departments of the University.** In order to do so, click **“Skip forward”** (step 10) to arrive at the page indicated in step 11.



Step 10 Choose elective courses of the list indicated above

First, you will see the elective courses proposed by the course programme. On the next page, you will be able to select elective courses from other study programmes in other Departments, which are in line with the course programme of Mathematical Engineering, study track "Mathematical Modelling for Engineering and Science".

Below, you find the academic offer of related course programmes as mentioned above. The choice for the **12 CFU** is bound to the academic offer in line with the degree programme Mathematical Engineering.



» Piano di Studio » Rule

Choice of the course units – Study Plan of Name Lastname - [MAT. XXXXXXX]

PLEASE NOTE

The use of the browser keys to go forward or backward in wizard can cause anomalies or errors in filling in the study plan. Keep to the navigation suggested in the page.

The sum of the choices made from the following rules must bebetween12 - 17 CFU

- Rule No.6: Affini consigliati Selected:12 CFU
- **Rule No.7: Affini in Ateneo Choose from 6 up to 17 CP**

Rule - No.7 - Year of course2

"Affini" modules offered by other study courses at Unipd - Choose from 6 up to 17 CP from among the following exams

You can choose 12 credits (CFU) from this list. If you wish to add an exam that is not in this list, please write to: didattica@dicea.unipd.it and to mario.putti@unipd.it. If the exam is suitable for the Study Course Rules, and approved by the Academic Committee, it can be added.

Course options:DATA SCIENCE [SC2377]
- ☐ MATHEMATICAL MODELS AND NUMERICAL METHODS FOR BIG DATA (SCP7079406) - [CFU: 6]
- ☐ STOCHASTIC METHODS (SCP7079197) - [CFU: 6]

Course options:ELECTRICAL ENERGY ENGINEERING [IN1979]
- ☐ THERMONUCLEAR FUSION (INN1027624) - [CFU: 6]

Course options:MATHEMATICAL ENGINEERING [IN2551]
- ☐ NUMERICAL METHODS FOR HIGH PERFORMANCE COMPUTING (INP5070472) - [CFU: 6]

Course options:PHYSICS [SC2382]
- ☐ ADVANCED PHYSICS LABORATORY A (SCP7081700) - [CFU: 6]
- ☐ APPLIED ELECTRONICS (SCP7081701) - [CFU: 6]
- ☐ ASTROPARTICLE PHYSICS (SCP7081703) - [CFU: 6]
- ☐ GENERAL RELATIVITY (SCP7081661) - [CFU: 6]
- ☐ INTRODUCTION TO MANY BODY THEORY (SCP7081699) - [CFU: 6]
- ☐ INTRODUCTION TO NANOPHYSICS (SCP7081718) - [CFU: 6]
- ☐ NUCLEAR ASTROPHYSICS (SCP7081704) - [CFU: 6]
- ☐ QUANTUM FIELD THEORY (SCP7081702) - [CFU: 6]
- ☐ SOLID STATE PHYSICS (SCP7081660) - [CFU: 6]
- ☐ STRUCTURE OF MATTER (SCP7081438) - [CFU: 6]
- ☐ SUBNUCLEAR PHYSICS (SCP7081697) - [CFU: 6]

CFU Min: 0 **CFU Max:** 0

The sum of the choices made from the previous rules of this restriction is12 CFU

Previous rule | Skip forward | Next rule

Step 11 Choose elective courses from the academic offer of Master degree programmes of other Departments of the University of Padua

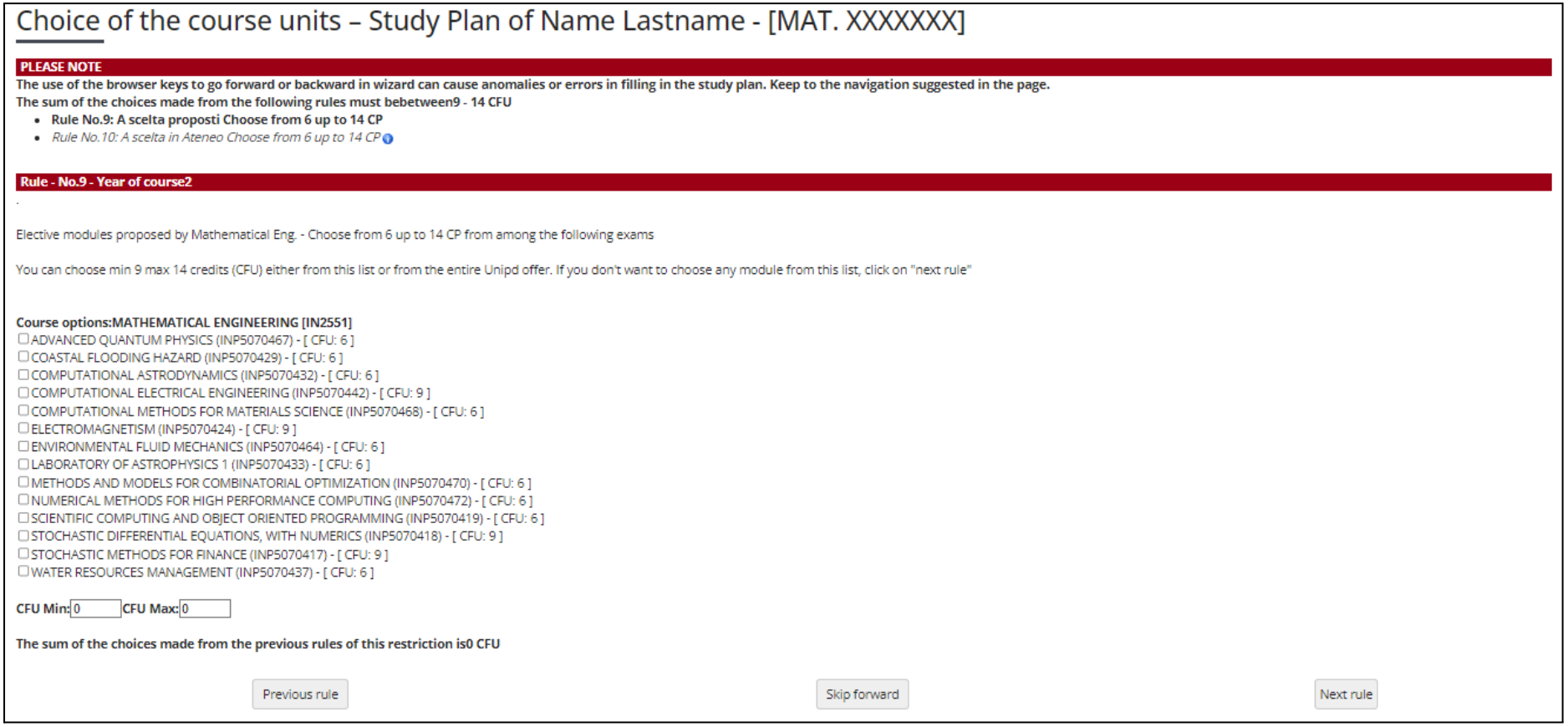
If you wish to add an exam that is not in this list, please write to the Teaching Office: didattica@dicea.unipd.it. If the exam is suitable for the Study Course Rules, and approved by the Academic Committee, it can be added.

For the **9 CFU of free choice,** you will also be able to either choose courses from the course offer of Mathematical Engineering or from the entire academic offer of the University of Padua.

The options are:

Option 1: Choose **one course suggested in the list** (step 12) and then proceed by clicking on **“Next rule”** to **choose a second elective course** from the **entire academic offer of the University of Padua (step 13-14).**

Option 2: Select **both courses from the entire academic offer of the University of Padua.** In order to do so, click **“Skip forward”** (step 12) to arrive at the page indicated in step 13. By clicking on “Add activity” the academic offer of all courses of the University of Padua will be made visible.



Choice of the course units – Study Plan of Name Lastname - [MAT. XXXXXXX]

PLEASE NOTE

The use of the browser keys to go forward or backward in wizard can cause anomalies or errors in filling in the study plan. Keep to the navigation suggested in the page.

The sum of the choices made from the following rules must bebetween9 - 14 CFU

- **Rule No.9: A scelta proposti Choose from 6 up to 14 CP**
- *Rule No.10: A scelta in Ateneo Choose from 6 up to 14 CP*

Rule - No.9 - Year of course2

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Elective modules proposed by Mathematical Eng. - Choose from 6 up to 14 CP from among the following exams

You can choose min 9 max 14 credits (CFU) either from this list or from the entire Unipd offer. If you don't want to choose any module from this list, click on "next rule"

Course options:MATHEMATICAL ENGINEERING [IN2551]

- ☐ ADVANCED QUANTUM PHYSICS (INP5070467) - [CFU: 6]
- ☐ COASTAL FLOODING HAZARD (INP5070429) - [CFU: 6]
- ☐ COMPUTATIONAL ASTRODYNAMICS (INP5070432) - [CFU: 6]
- ☐ COMPUTATIONAL ELECTRICAL ENGINEERING (INP5070442) - [CFU: 9]
- ☐ COMPUTATIONAL METHODS FOR MATERIALS SCIENCE (INP5070468) - [CFU: 6]
- ☐ ELECTROMAGNETISM (INP5070424) - [CFU: 9]
- ☐ ENVIRONMENTAL FLUID MECHANICS (INP5070464) - [CFU: 6]
- ☐ LABORATORY OF ASTROPHYSICS 1 (INP5070433) - [CFU: 6]
- ☐ METHODS AND MODELS FOR COMBINATORIAL OPTIMIZATION (INP5070470) - [CFU: 6]
- ☐ NUMERICAL METHODS FOR HIGH PERFORMANCE COMPUTING (INP5070472) - [CFU: 6]
- ☐ SCIENTIFIC COMPUTING AND OBJECT ORIENTED PROGRAMMING (INP5070419) - [CFU: 6]
- ☐ STOCHASTIC DIFFERENTIAL EQUATIONS, WITH NUMERICS (INP5070418) - [CFU: 9]
- ☐ STOCHASTIC METHODS FOR FINANCE (INP5070417) - [CFU: 9]
- ☐ WATER RESOURCES MANAGEMENT (INP5070437) - [CFU: 6]

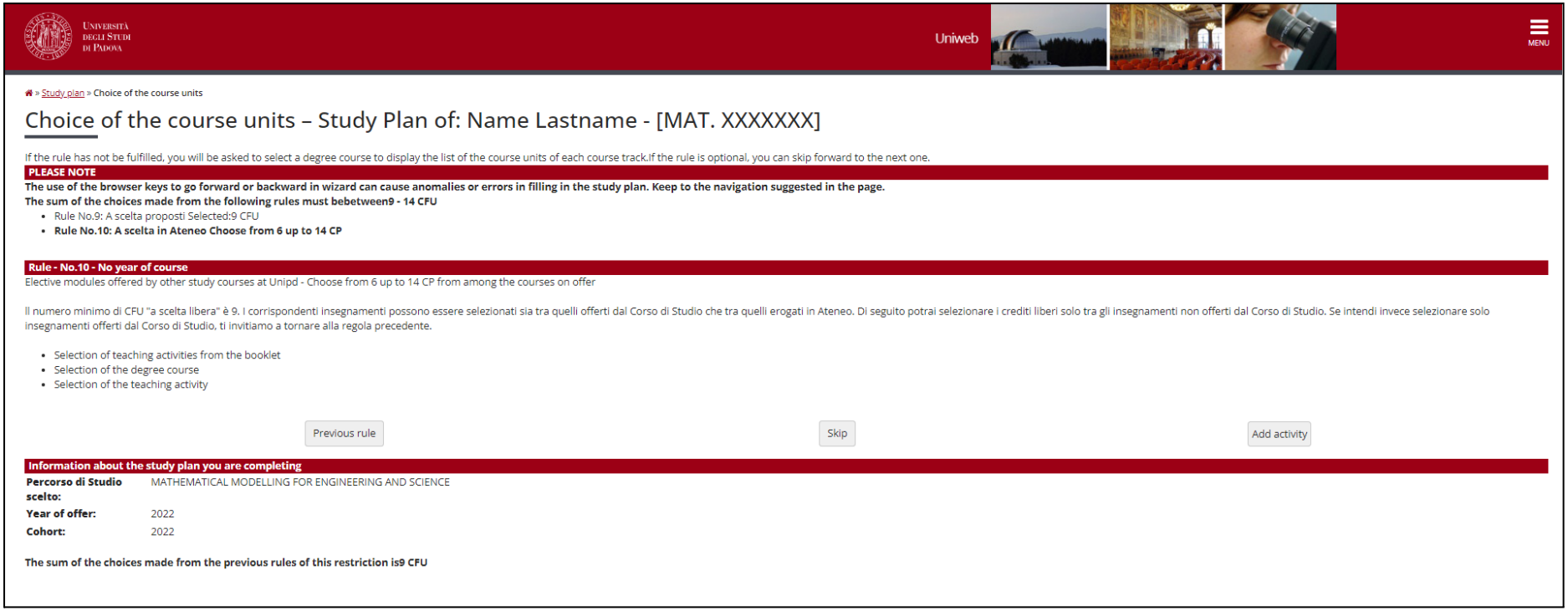
CFU Min: 0 **CFU Max:** 0

The sum of the choices made from the previous rules of this restriction is0 CFU

Previous rule | Skip forward | Next rule

Step 12 Choose 9 CFU of free choice

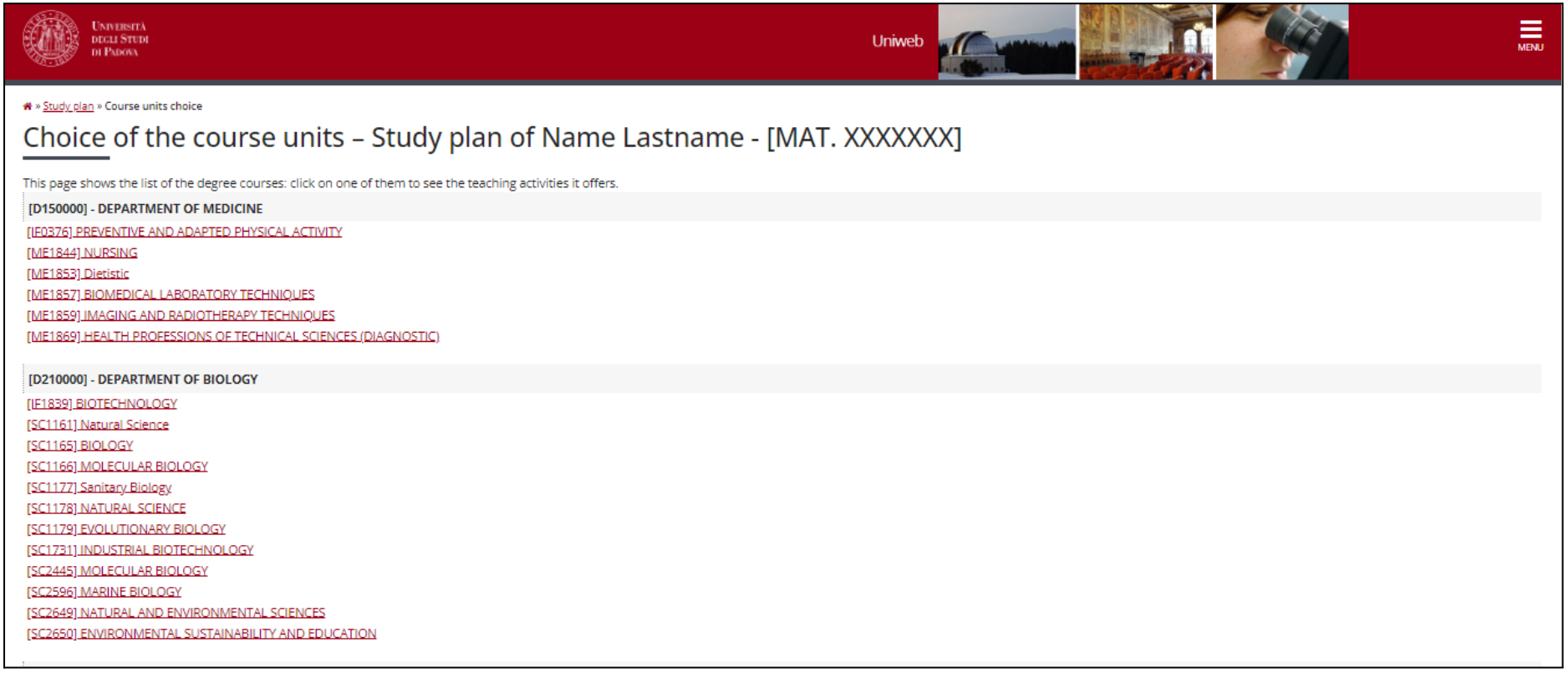
Above, you are suggested several courses of the Degree programme.



Step 13 Choose elective courses from the academic offer of other departments

If you wish, however, to choose from the academic offer of the University of Padua, click on **“Skip forward”** in step 12 and click on **“Add activity”** as shown in step 13.

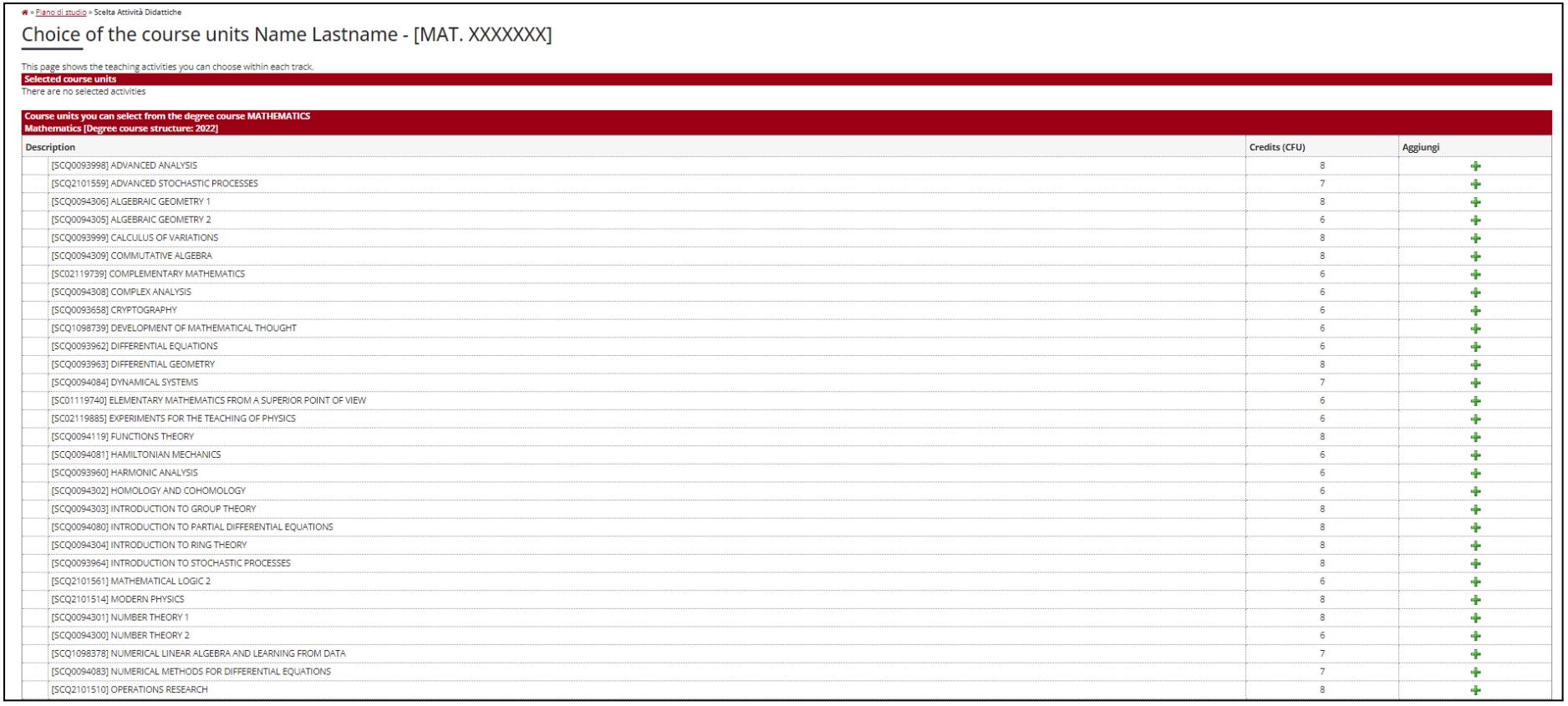
Below, you will see a list of all courses offered at the University of Padua.



Overview of the complete academic offer of the University of Padua

By clicking on each programme, an overview of all the individual courses offered by the respective degree programme are displayed.

Students can choose courses from all study programmes of the University of Padua. It is advised to choose courses which are **in line with the study programme** of the Master degree in Mathematical Engineering in order to have the elective courses approved. A course can be added by clicking on the **green plus** on the degree programme.



» Piano di studio » Scelta Attività Didattiche

Choice of the course units Name Lastname - [MAT. XXXXXXX]

This page shows the teaching activities you can choose within each track.

Selected course units

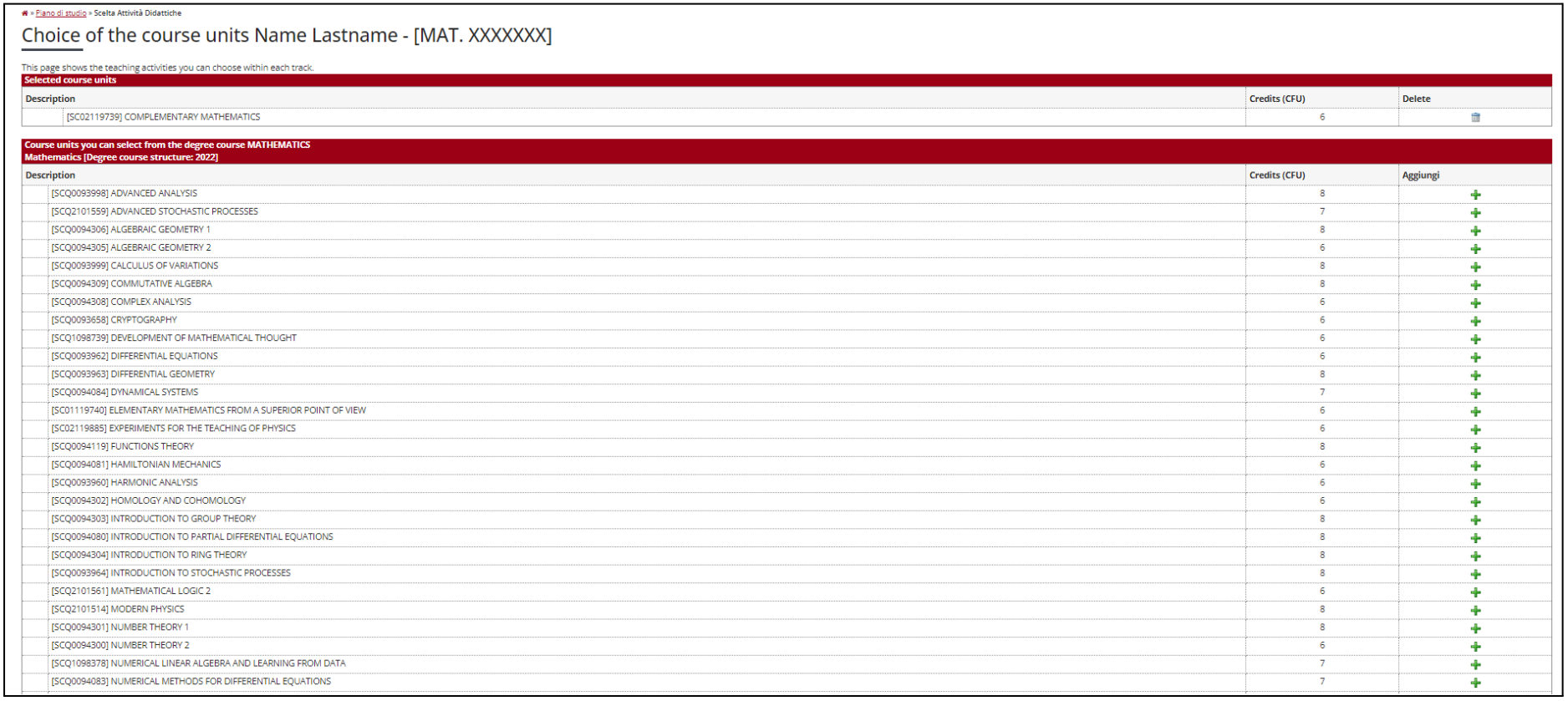
There are no selected activities

Course units you can select from the degree course MATHEMATICS
Mathematics [Degree course structure: 2022]

Description	Credits (CFU)	Aggiungi
[SCQ0093998] ADVANCED ANALYSIS	8	+
[SCQ2101559] ADVANCED STOCHASTIC PROCESSES	7	+
[SCQ0094306] ALGEBRAIC GEOMETRY 1	8	+
[SCQ0094305] ALGEBRAIC GEOMETRY 2	6	+
[SCQ0093999] CALCULUS OF VARIATIONS	8	+
[SCQ0094309] COMMUTATIVE ALGEBRA	8	+
[SC02119739] COMPLEMENTARY MATHEMATICS	6	+
[SCQ0094308] COMPLEX ANALYSIS	6	+
[SCQ0093658] CRYPTOGRAPHY	6	+
[SCQ1098739] DEVELOPMENT OF MATHEMATICAL THOUGHT	6	+
[SCQ0093962] DIFFERENTIAL EQUATIONS	6	+
[SCQ0093963] DIFFERENTIAL GEOMETRY	8	+
[SCQ0094084] DYNAMICAL SYSTEMS	7	+
[SC01119740] ELEMENTARY MATHEMATICS FROM A SUPERIOR POINT OF VIEW	6	+
[SC02119885] EXPERIMENTS FOR THE TEACHING OF PHYSICS	6	+
[SCQ0094119] FUNCTIONS THEORY	8	+
[SCQ0094081] HAMILTONIAN MECHANICS	6	+
[SCQ0093960] HARMONIC ANALYSIS	6	+
[SCQ0094302] HOMOLOGY AND COHOMOLOGY	6	+
[SCQ0094303] INTRODUCTION TO GROUP THEORY	8	+
[SCQ0094080] INTRODUCTION TO PARTIAL DIFFERENTIAL EQUATIONS	8	+
[SCQ0094304] INTRODUCTION TO RING THEORY	8	+
[SCQ0093964] INTRODUCTION TO STOCHASTIC PROCESSES	8	+
[SCQ2101561] MATHEMATICAL LOGIC 2	6	+
[SCQ2101514] MODERN PHYSICS	8	+
[SCQ0094301] NUMBER THEORY 1	8	+
[SCQ0094300] NUMBER THEORY 2	6	+
[SCQ1098378] NUMERICAL LINEAR ALGEBRA AND LEARNING FROM DATA	7	+
[SCQ0094083] NUMERICAL METHODS FOR DIFFERENTIAL EQUATIONS	7	+
[SCQ2101510] OPERATIONS RESEARCH	8	+

Step 14 Add an elective course from the Degree Programme of choice

The course selected is shown in the upper bar. In order to confirm the choice, click on **“Back to the rule”** or remove the course previously chosen by clicking on **“Delete”** and then on **“Change degree course”** to select a different course.



» Piano di studio » Scelta Attività Didattiche

Choice of the course units Name Lastname - [MAT. XXXXXXX]

This page shows the teaching activities you can choose within each track.

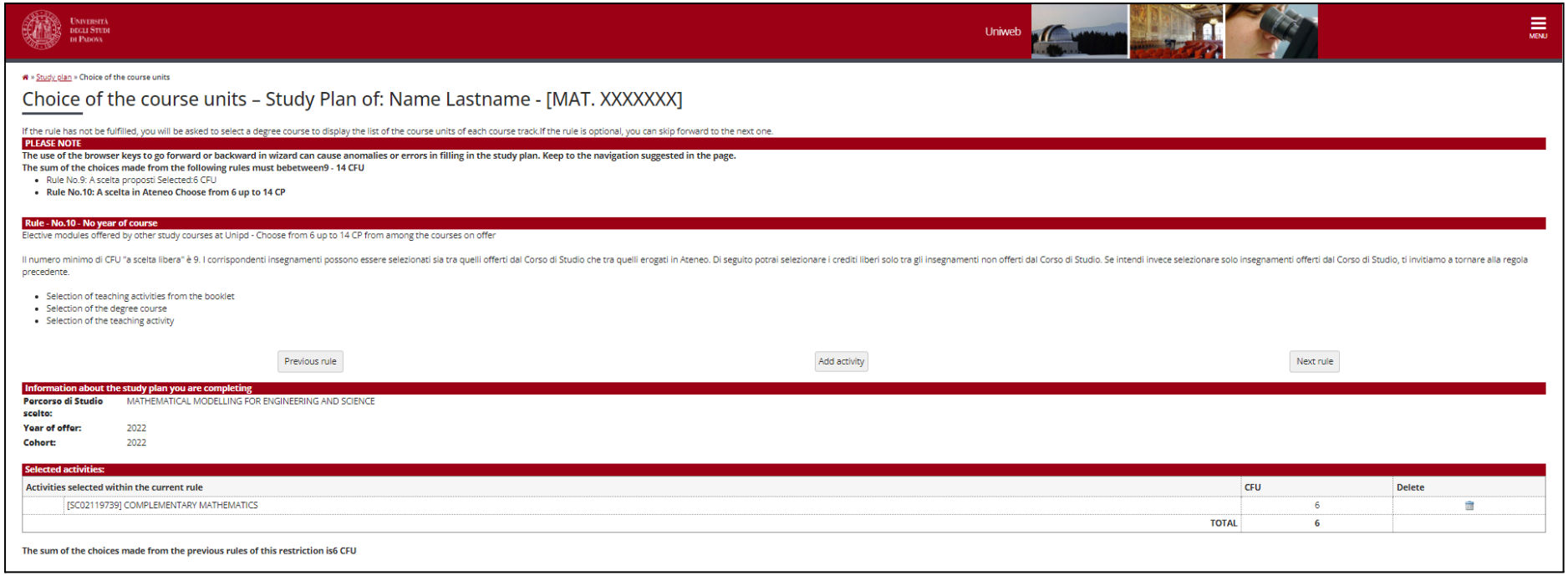
Selected course units

Description	Credits (CFU)	Delete
[SC02119739] COMPLEMENTARY MATHEMATICS	6	

Course units you can select from the degree course MATHEMATICS
Mathematics [Degree course structure: 2022]

Description	Credits (CFU)	Aggiungi
[SCQ0093998] ADVANCED ANALYSIS	8	
[SCQ2101559] ADVANCED STOCHASTIC PROCESSES	7	
[SCQ0094306] ALGEBRAIC GEOMETRY 1	8	
[SCQ0094305] ALGEBRAIC GEOMETRY 2	6	
[SCQ0093999] CALCULUS OF VARIATIONS	8	
[SCQ0094309] COMMUTATIVE ALGEBRA	8	
[SCQ0094308] COMPLEX ANALYSIS	6	
[SCQ0093658] CRYPTOGRAPHY	6	
[SCQ1098739] DEVELOPMENT OF MATHEMATICAL THOUGHT	6	
[SCQ0093962] DIFFERENTIAL EQUATIONS	6	
[SCQ0093963] DIFFERENTIAL GEOMETRY	8	
[SCQ0094084] DYNAMICAL SYSTEMS	7	
[SC01119740] ELEMENTARY MATHEMATICS FROM A SUPERIOR POINT OF VIEW	6	
[SC02119885] EXPERIMENTS FOR THE TEACHING OF PHYSICS	6	
[SCQ0094119] FUNCTIONS THEORY	8	
[SCQ0094081] HAMILTONIAN MECHANICS	6	
[SCQ0093960] HARMONIC ANALYSIS	6	
[SCQ0094302] HOMOLOGY AND COHOMOLOGY	6	
[SCQ0094303] INTRODUCTION TO GROUP THEORY	8	
[SCQ0094080] INTRODUCTION TO PARTIAL DIFFERENTIAL EQUATIONS	8	
[SCQ0094304] INTRODUCTION TO RING THEORY	8	
[SCQ0093964] INTRODUCTION TO STOCHASTIC PROCESSES	8	
[SCQ2101561] MATHEMATICAL LOGIC 2	6	
[SCQ2101514] MODERN PHYSICS	8	
[SCQ0094301] NUMBER THEORY 1	8	
[SCQ0094300] NUMBER THEORY 2	6	
[SCQ1098378] NUMERICAL LINEAR ALGEBRA AND LEARNING FROM DATA	7	
[SCQ0094083] NUMERICAL METHODS FOR DIFFERENTIAL EQUATIONS	7	

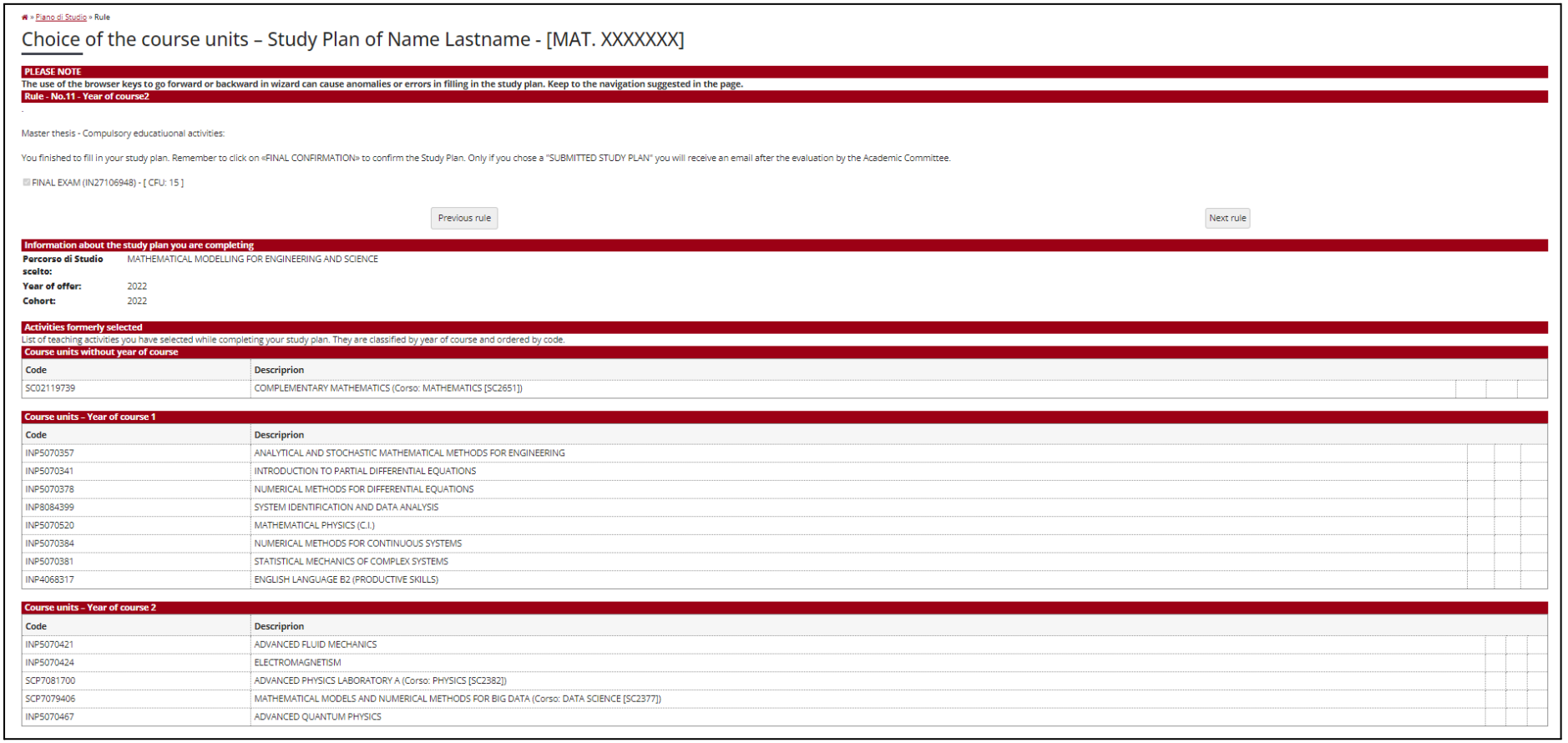
Overview of the course selection



Step 15 Confirm your choice or select one more course

If the choice is confirmed, the screen above will be demonstrated. By clicking on **“Next rule”** to proceed with the remaining steps to finalize the study plan. If you wish to add a second course of the course offer of other Departments to arrive at 9 CFU, click again on **“Add activity”** and repeat the procedure.

It is only possible to proceed to **“Next rule”,** if two elective courses amounting to **12 CFU** as well as **9 CFU** of free choice have been selected. The last step before finalizing the study plan is to add the **“Final project”,** which is the thesis, to the study plan.



» Piano di Studio » Rule

Choice of the course units – Study Plan of Name Lastname - [MAT. XXXXXXX]

PLEASE NOTE

The use of the browser keys to go forward or backward in wizard can cause anomalies or errors in filling in the study plan. Keep to the navigation suggested in the page.

Rule - No.11 - Year of course2

Master thesis - Compulsory educatiuonal activities:

You finished to fill in your study plan. Remember to click on «FINAL CONFIRMATION» to confirm the Study Plan. Only if you chose a "SUBMITTED STUDY PLAN" you will receive an email after the evaluation by the Academic Committee.

FINAL EXAM (IN2710694B) - [CFU: 15]

Previous rule | Next rule

Information about the study plan you are completing

Percorso di Studio scelto: MATHEMATICAL MODELLING FOR ENGINEERING AND SCIENCE

Year of offer: 2022

Cohort: 2022

Activities formerly selected

List of teaching activities you have selected while completing your study plan. They are classified by year of course and ordered by code.

Course units without year of course

Code	Descriprion
SC02119739	COMPLEMENTARY MATHEMATICS (Corso: MATHEMATICS [SC2651])

Course units – Year of course 1

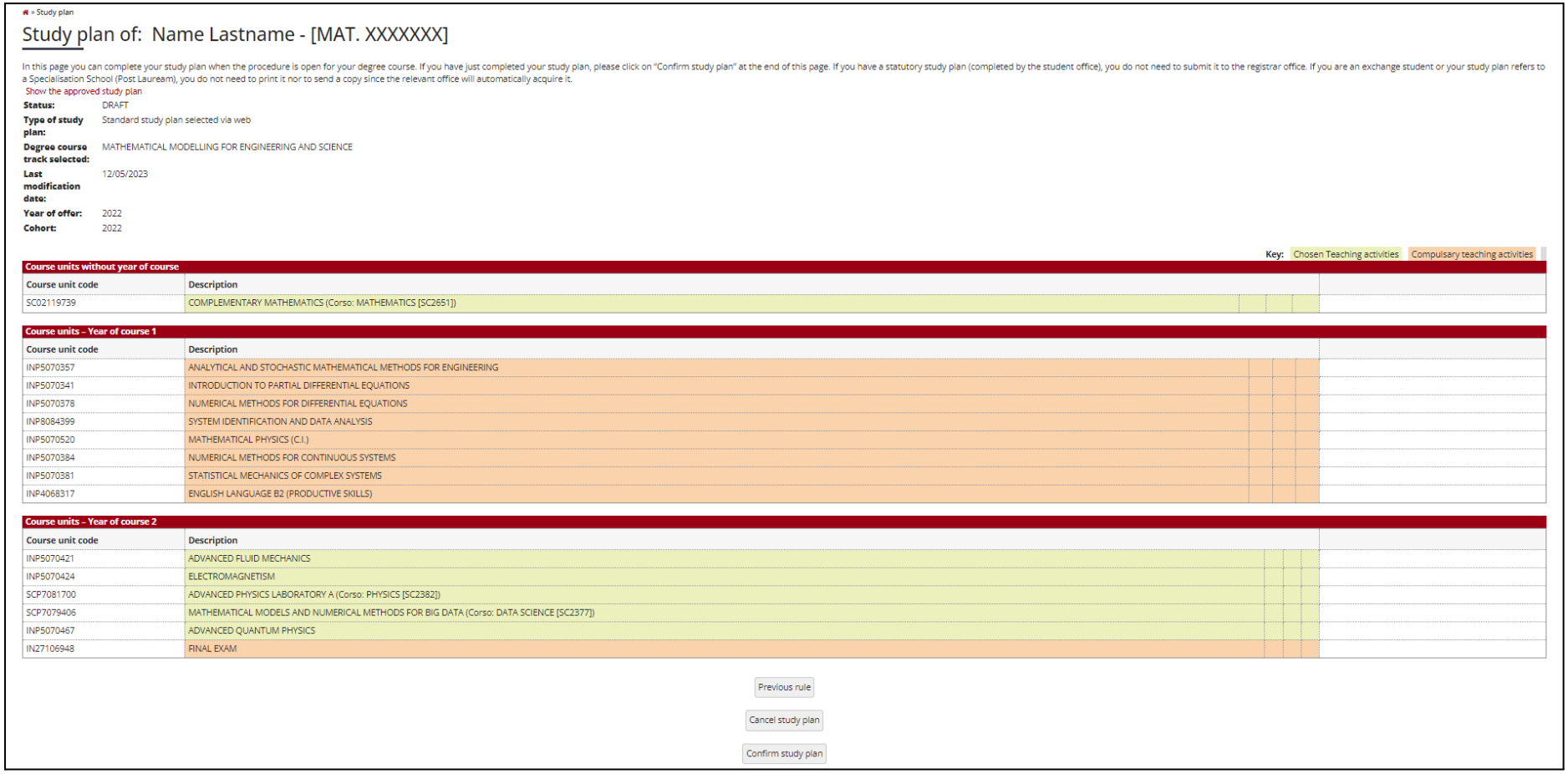
Code	Descriprion
INP5070357	ANALYTICAL AND STOCHASTIC MATHEMATICAL METHODS FOR ENGINEERING
INP5070341	INTRODUCTION TO PARTIAL DIFFERENTIAL EQUATIONS
INP5070378	NUMERICAL METHODS FOR DIFFERENTIAL EQUATIONS
INP8084399	SYSTEM IDENTIFICATION AND DATA ANALYSIS
INP5070520	MATHEMATICAL PHYSICS (C.I.)
INP5070384	NUMERICAL METHODS FOR CONTINUOUS SYSTEMS
INP5070381	STATISTICAL MECHANICS OF COMPLEX SYSTEMS
INP4068317	ENGLISH LANGUAGE B2 (PRODUCTIVE SKILLS)

Course units – Year of course 2

Code	Descriprion
INP5070421	ADVANCED FLUID MECHANICS
INP5070424	ELECTROMAGNETISM
SCP7081700	ADVANCED PHYSICS LABORATORY A (Corso: PHYSICS [SC2382])
SCP7079406	MATHEMATICAL MODELS AND NUMERICAL METHODS FOR BIG DATA (Corso: DATA SCIENCE [SC2377])
INP5070467	ADVANCED QUANTUM PHYSICS

Step 16 Include the final project in your study plan

By clicking **“Next rule”,** the final project will be added to the study plan.



» Study plan

Study plan of: Name Lastname - [MAT. XXXXXXX]

In this page you can complete your study plan when the procedure is open for your degree course. If you have just completed your study plan, please click on "Confirm study plan" at the end of this page. If you have a statutory study plan (completed by the student office), you do not need to submit it to the registrar office. If you are an exchange student or your study plan refers to a Specialisation School (Post Lauream), you do not need to print it nor to send a copy since the relevant office will automatically acquire it.

Show the approved study plan

Status: DRAFT
Type of study plan: Standard study plan selected via web
Degree course track selected: MATHEMATICAL MODELLING FOR ENGINEERING AND SCIENCE
Last modification data: 12/05/2023
Year of offer: 2022
Cohort: 2022

Key: Chosen Teaching activities | Compulsory teaching activities

Course units without year of course

Course unit code	Description
SC02119739	COMPLEMENTARY MATHEMATICS (Corso: MATHEMATICS [SC2651])

Course units – Year of course 1

Course unit code	Description
INP5070357	ANALYTICAL AND STOCHASTIC MATHEMATICAL METHODS FOR ENGINEERING
INP5070341	INTRODUCTION TO PARTIAL DIFFERENTIAL EQUATIONS
INP5070378	NUMERICAL METHODS FOR DIFFERENTIAL EQUATIONS
INP8084399	SYSTEM IDENTIFICATION AND DATA ANALYSIS
INP5070520	MATHEMATICAL PHYSICS (C.I.)
INP5070384	NUMERICAL METHODS FOR CONTINUOUS SYSTEMS
INP5070381	STATISTICAL MECHANICS OF COMPLEX SYSTEMS
INP4068317	ENGLISH LANGUAGE B2 (PRODUCTIVE SKILLS)

Course units – Year of course 2

Course unit code	Description
INP5070421	ADVANCED FLUID MECHANICS
INP5070424	ELECTROMAGNETISM
SCP7081700	ADVANCED PHYSICS LABORATORY A (Corso: PHYSICS [SC2382])
SCP7079406	MATHEMATICAL MODELS AND NUMERICAL METHODS FOR BIG DATA (Corso: DATA SCIENCE [SC2377])
INP5070467	ADVANCED QUANTUM PHYSICS
IN27106948	FINAL EXAM

Previous rule
Cancel study plan
Confirm study plan

Step 17 Confirm study plan

The last page of the procedure includes an overview of all the courses for both academic years as well as the list of elective courses selected. In order to finalize the study plan, click on **"Confirm study plan".**

IMPORTANT:

Confirming your study plan is an essential step *to upload the study plan on the Uniweb platform and be able to register for exams.*

Please be aware that when confirming the ***PROP-MM - Submitted Study Plan - MM track,*** *the plan has still to be approved by the Course Coordinator. Once the plan has been officially approved, a notification will be sent via the Uniweb platform.*