EPICUR
EUROPEAN UNIVERSITY

Co-funded by the
Erasmus+ Programme
of the European Union

EPICUR
European Partnership for an Innovative Campus Unifying Regions

EPICUR Inter University Campus (EIUC)

Document prepared within the framework of the EPICUR European University Alliance with the support of the Erasmus+ Programme of the European Union: KA2: Cooperation for innovation and the exchange of good practices/ EUROPEAN UNIVERSITIES/ Pilot call for proposals: EAC-A03-2018

Introduction

This document is presenting the EPICUR Inter University Campus (EIUC) and it is an output of the pilot phase of EPICUR Alliance[1] (2019-2022).

The EPICUR Inter-University Campus is a central online gateway (Figure 1) for supporting flexible virtual, physical and hybrid mobilities for all students and staff across the alliance. One of its unique features is its fully digitalized, paper-free process for student admissions that is supported by a secure, scalable and transparent solution based on free and open-source software. Furthermore, EIUC offers innovative functionality to monitor mobilities, issue and recognize certifications (including ECTS and micro-credentials).

Figure 1: EPICUR Inter-University Campus is a central online gateway

This guide has been written to provide a general introduction to the EPICUR Inter-University Campus design and functionalities. The intended target audience includes experts on digitalization of Higher Education Institutions as well as learning technology experts.

The following sections are presenting the high-level architecture of the EPICUR Inter-University Campus and its main components (a) the Virtual University Registrar System (VURS) and (b) the Virtual Campus Learning Platform (VCLP).

[1] EUIC has been developed in the context of Work Package 4 "WP4-Pave the way for an Inter-University Campus, using a student (and staff) centred approach" lead by Aristotle University of Thessaloniki (AUTh) and especially by the following tasks and deliverables: (a) Task 4.2.1 – Initial design and creation of the Virtual Campus Learning Platform (VCLP), D4.1.2: Procedures for evaluating courses and monitor mobility (led by KIT); (b) Task 4.2.3: Guidelines and design for a Virtual University Registrar System (VURS), D4.2.3: Guidelines and design for a Virtual University Registrar System (VURS) (lead by AUTh).

List of Contents

Introduction 2
List of Contents 3
List of Tables 5
List of Figures 7
1 High level EIUC architecture 9
2 Virtual University Registrar System (VURS) 10
2.1 Introduction 10
2.2 Access and Registration / Login 11
2.2.1 Access to the VURS 11
2.3 Registrar 12
2.3.1 Preview Main Information 12
2.3.2 Search Lecturer 13
2.3.3 Preview Lecturer 14
2.3.4 Insert Lecturer 15
2.3.5 Edit Lecturer 17
2.3.6 Search Students 18
2.3.7 Preview Student 19
2.3.8 Edit Student 20
2.3.9 Document request on behalf of student 21
2.3.10 Export student's report 22
2.3.11 Search Courses 23
2.3.12 Preview Course 23
2.3.13 Create Course 25
2.3.14 Edit Course 26
2.3.15 Search Classes 28
2.3.16 Preview Class 29
2.3.17 Edit Class 30
2.3.18 Search Course Exams 30
2.3.19 Preview Course Exam 31
2.3.20 Edit Course Exam 33
2.3.21 Grade Submission action 33
2.3.22 Search Mobilities 34
2.3.23 Preview Mobility 35
2.3.24 Create Mobility 37
2.3.25 Edit Mobility 38
2.3.26 Search Applications 39
2.3.27 Preview Application 40
2.3.28 Application Actions 42

2.3.29 Search Student Requests 43
2.3.30 Preview Student Request 43
2.3.31 Search Student Registrations 44
2.3.32 Search Internships 45
2.3.33 Preview Internships 46
2.3.34 Create Internship 47
2.3.35 Edit Internship 48
2.3.36 Search Companies/Organizations 50
2.3.37 Add Company/Organization 50
2.3.38 Edit Company/Organization 51
2.3.39 Search Company Types 52
2.3.40 Add Company Type 52
2.3.41 Edit Company Type 53
2.3.42 Search Archived Documents 54
2.3.43 Search Lists/Enumerations 54
2.4 Students 55
2.4.1 Preview Main Information 55
2.4.2 Check Grades 56
2.4.3 View Requests 57
2.4.4 Create Request 59
2.5 Lecturers 60
2.5.1 Preview Main Information 60
2.5.2 Search Courses 60
2.5.3 Preview Course Class 61
2.5.4 View Class Students 62
2.5.5 Grade students 63
2.6 Candidates 64
2.6.1 View Mobility Applications 64
2.6.2 Submit Mobility Application 64
2.6.3 Preview Mobility Application 66
3 Virtual Campus Learning Platform (VCLP) 69
3.1 Introduction 69
3.2 VCLP landing page 69
3.3 Single Sign On 70
3.4 Decentralized course delivery 71
3.4.1 Course sharing 72
3.4.2 Course access 72

List of Tables

Table 1: Overview of VURS Roles and Rights per Component 10
Table 2: Template for Functionalities 11
Table 3: Access to the VURS functionality 11
Table 4: Preview Main Information functionality 12
Table 5: Search Lecturers functionality 13
Table 6: Preview Lecturer functionality 14
Table 7: Insert Lecturer functionality 16
Table 8: Edit Lecturer functionality 17
Table 9: Search Students functionality 18
Table 10: Preview Student functionality 19
Table 11: Edit Student functionality 20
Table 12: Document request on behalf of student functionality 21
Table 13: Export student's report functionality 22
Table 14: Search Courses functionality 23
Table 15: Preview Course functionality 24
Table 16: Create Course functionality 26
Table 17: Edit Course functionality 27
Table 18: Search Classes functionality 28
Table 19: Preview Class functionality 29
Table 20: Edit Class functionality 30
Table 21: Search Course Exams functionality 31
Table 22: Preview Course Exam functionality 32
Table 23: Edit Course Exam functionality 33
Table 24: Grade Submission action functionality 34
Table 25: Search Mobilities functionality 35
Table 26: Preview Mobility functionality 36
Table 27: Create Mobility functionality 38
Table 28: Edit Mobility functionality 39
Table 29: Search Applications functionality 40
Table 30: Preview Application functionality 41
Table 31: Application Actions functionality 42
Table 32: Search Student Requests functionality 43
Table 33: Preview Student Request functionality 44
Table 34: Search Student Registrations functionality 45
Table 35: Search Internships functionality 46
Table 36: Preview Internships functionality 47
Table 37: Create Internship functionality 48
Table 38: Edit Internship functionality 49
Table 39: Search Companies/Organizations functionality 50
Table 40: Add Company/Organization functionality 51
Table 41: Edit Company/Organization functionality 52
Table 42: Search Company Types functionality 52
Table 43: Add Company Type functionality 53

Table 44: Edit Company Type functionality 53
Table 45: Search Archived Documents functionality 54
Table 46: Search Lists/Enumerations functionality 55
Table 47: Preview Main Information functionality 56
Table 48: Check Grades functionality 56
Table 49: View Requests functionality 57
Table 50: Create Request functionality 59
Table 51: Preview Main Information functionality 60
Table 52: Search Courses functionality 61
Table 53: Preview Course Class functionality 62
Table 54: View Class Students functionality 62
Table 55: Grade Students functionality 63
Table 56: View Mobility Applications functionality 64
Table 57: Submit Mobility Application functionality 65
Table 58: Preview Mobility Application functionality 67

List of Figures

Figure 1: EPICUR Inter-University Campus is a central online gateway 2
Figure 2: EIUC high level architecture 9
Figure 3: VURS components 10
Figure 4: Access to the VURS functionality 11
Figure 5: Preview Main Information functionality 12
Figure 6: Search Lecturers functionality: a) List of Lecturers, b) Full search criteria 13
Figure 7: Preview Lecturer functionality: a) Overview tab, b) Classes tab, c) Exams tab 14
Figure 8: Insert Lecturer functionality 16
Figure 9: Edit Lecturer functionality 17
Figure 10: Search Students functionality: a) List of Students, b) Full search criteria 18
Figure 11: Preview Student functionality 19
Figure 12: Edit Student functionality 20
Figure 13: Document request on behalf of student functionality: a) request form, b) incomplete request 21
Figure 14: Export student's report functionality 22
Figure 15: Search Courses functionality: a) List of Courses, b) Full search criteria 23
Figure 16: Preview Course functionality: a) Overview tab, b) Add class form, c) Add exam form 24
Figure 17: Create Course functionality 26
Figure 18: Edit Course functionality 27
Figure 19: Search Classes functionality: a) List of Classes, b) Full search criteria 28
Figure 20: Preview Class functionality: a) Overview tab, b) Instructors tab 29
Figure 21: Edit Class functionality 30
Figure 22: Search Course Exams functionality: a) List of Course Exams, b) Full search criteria 31
Figure 23: Preview Course Exam functionality a) Overview tab, b) Instructors tab 32
Figure 24: Edit Course Exam functionality 33
Figure 25: Grade Submission action functionality 34
Figure 26: Search Mobilities functionality: a) List of Mobilities, b) Full search criteria 34
Figure 27: Preview Mobility functionality: a) Overview tab, b) add course form 36
Figure 28: Create Mobility functionality 38
Figure 29: Edit Mobility functionality 39
Figure 30: Search Applications functionality: a) List of Applications, b) Full search criteria 40
Figure 31: Preview Application functionality 41
Figure 32: Application Actions functionality 42
Figure 33: Search Student Requests functionality: a) List of Student Requests, b) Full search criteria 43
Figure 34: Preview Student Request functionality 44
Figure 35: Search Student Registrations functionality: a) List of Student Registrations, b) Full search criteria 45
Figure 36: Search Internships functionality: a) List of Internships, b) Full search criteria 46
Figure 37: Preview Internships functionality 47
Figure 38: Create Internship functionality 48
Figure 39: Edit Internship functionality 49
Figure 40: Search Companies/Organizations functionality: a) List of Companies/Organizations, b) Full search criteria 50

Figure 41: Add Company/Organization functionality 51
Figure 42: Edit Company/Organization functionality 51
Figure 43: Search Company Types functionality 52
Figure 44: Add Company Type functionality 53
Figure 45: Edit Company Type functionality 53
Figure 46: Search Archived Documents functionality: a) List of Archived Documents, b) Full search criteria 54
Figure 47: Search Lists/Enumerations functionality 55
Figure 48: Preview Main Information functionality 55
Figure 49: Check Grades functionality: All Grades 56
Figure 50: View Requests functionality 57
Figure 51: Examples of requests: a) Transcript of Records, b) Learning Agreement 59
Figure 52: Create Request functionality: a) List of requests, b)Transcript of records request form 59
Figure 53: Preview Main Information functionality 60
Figure 54: Search Courses functionality: a) Current courses, b) My courses 61
Figure 55: Preview Course Class functionality 62
Figure 56: View Class Students functionality 62
Figure 57: Grade Students functionality: a) Grades page of a course class, b) completion of submission 63
Figure 58: View Mobility Applications functionality 64
Figure 59: Submit Mobility Application functionality a) Personal Information tab, b) Mobility program tab, c) Documents tab 65
Figure 60: Preview Mobility Application functionality a) Personal Information tab, b) Mobility program tab, c) Documents tab, d) Messages tab 67
Figure 61: The Landing Page of the VCLP 69
Figure 62: Languages & Culture mobility program page 70
Figure 63: Example of one EPICUR course as displayed in the VCLP course catalogue 70
Figure 64: Login Screen of the VCLP – Selection of the home institution 71
Figure 65: The "My EPICUR courses" category contains the available courses for a student 72

1 High level EIUC architecture

This paragraph is presenting a high-level architecture of the EPICUR Inter-University Campus and the main VURS components.

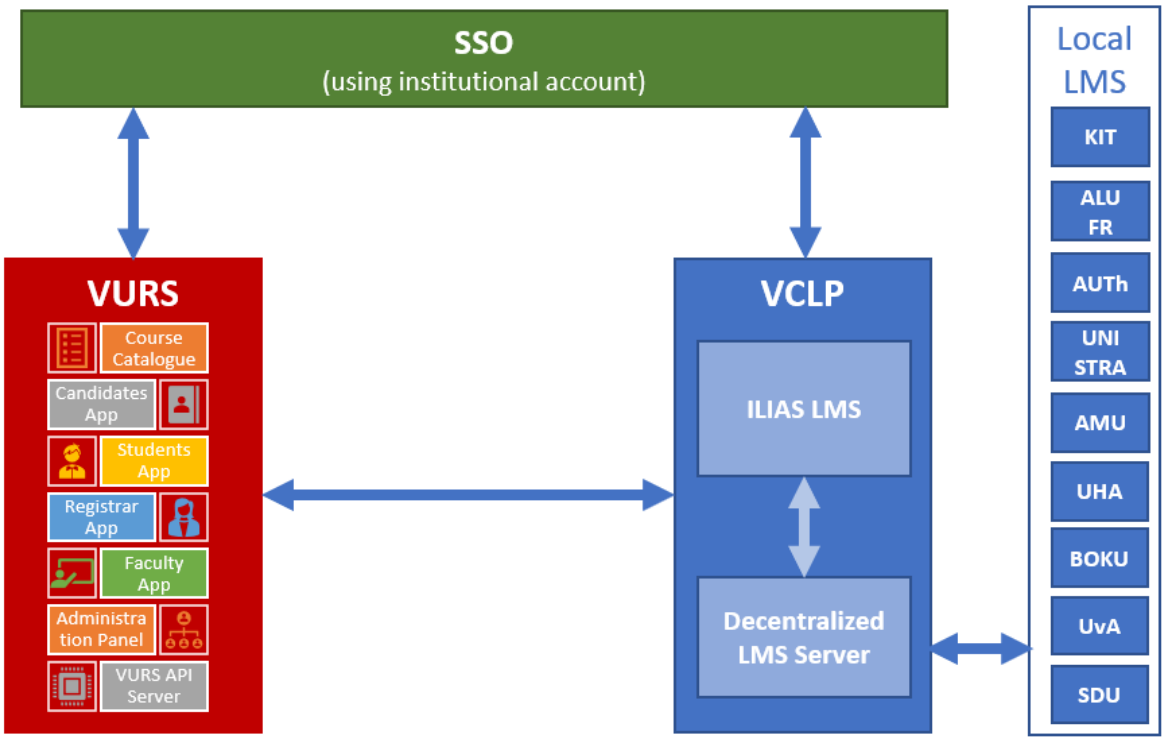

Figure 2: EIUC high level architecture

The main EIUC components are the following (Figure 2):

- Single Sign On (**SSO**) Services in order for the users to have access with their institutional account.
- Virtual University Registrar System (**VURS**): Centralised Campus Management System/Student Information System (CMS/SIS) keeping the necessary information for the students' mobilities and services. The main VURS Components are the following:
  - Course Catalogue (https://courses.epicur.auth.gr): Public course catalogue of all learning pathways offered to the EPICUR students.
  - Candidates App (https://register.epicur.auth.gr/): The application for the prospective students to apply for participation in the EPICUR learning pathways.
  - Students App (https://students.epicur.auth.gr/): The application for the selected students attending the EPICUR learning pathways.
  - Registrar App (https://registrar.epicur.auth.gr/): The application for the administrative staff to monitor EPICUR learning pathways and students mobilities.
  - Faculty App (https://faculty.epicur.auth.gr/): The application for the teaching staff delivering a course that is part of an EPICUR learning pathway.
  - Admin Panel (https://registrar.epicur.auth.gr/): A specific part of the application for the Registrar App to admin the rights and roles of the rest of the users.
  - VURS API Server: The core service interacting with all the apps above and the VCLP component.
- Virtual Campus Learning Platform (**VCLP**) accessible at https://learn.epicur.education: It is the Learning Management System (LMS) of EPICUR along with a Decentralised LMS server acting as gateway to local LMSs of the partners. The VCLP is a full Learning Management System, which is

based on ILIAS. ILIAS[2] is an open-source and free Learning Management System, which is popular in Germany and Switzerland. Both German universities of the EPICUR alliance are using ILIAS as their main Learning Management System. ILIAS is completely web-based, hence requires only a web browser on the client side to use it. It supports learning content management and tools for collaboration, communication, evaluation and assessments. It is published under the GNU General Public License. The functionality of ILIAS can also be extended with Plug-Ins. There exists a variety of free and commercial Plug-Ins for ILIAS, adding missing functionality for specific cases. As the VCLP is a complete Learning Management System, courses can be directly hosted on the VCLP itself. However, since the VCLP is based on ILIAS, it can also be integrated with other LMS by connecting the LMS to one or more "Decentralized LMS servers".

The following sections are presenting the functionality supported by VURS and VCLP.

2 Virtual University Registrar System (VURS)

2.1 Introduction

As described before VURS has the following main components that can be accessed by its specific webpage (Figure 3):

- Course Catalogue
- Candidates App
- Students App
- Registrar App
- Faculty App
- Admin Panel

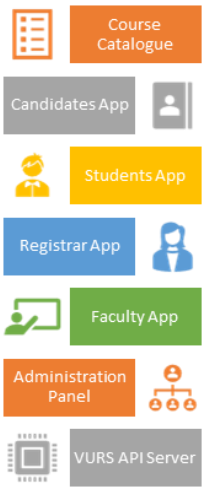

Figure 3: VURS components

Table 1 presents and overview of VURS Roles and Rights per Component.

Table 1: Overview of VURS Roles and Rights per Component

Component	**Roles/Rights**
Course Catalogue	Guest / Open access to everyone
Candidates App	Candidate /Every user of the local partner universities; S/he can apply for a mobility
Students App	EPICUR student / Student that has been selected to at least one EPICUR mobility and can track his records and communicate with the professors.

[2] https://www.ilias.de/

Registrar App	Administrative staff / Creation of mobilities and courses; admission of students
Faculty App	Teaching staff / Grading and communication with the students
Admin Panel	Administrator / Responsible for: • data consistency; • bug fixes; • analytics reports; • site reliability.

This section presents the most important VURS interfaces as they have been already developed according to the required functionality. Along with the system interfaces the specific system functionality are described using the template presented in Table 2.

Table 2: Template for Functionalities

Functionality Name	Name of the functionality
Actors	Users or system components that will use this functionality
Input Data	Data needed for the implementation
Description	Process that will be followed for the achievement of the functionality
Output Data	Expected result

2.2 Access and Registration / Login

2.2.1 Access to the VURS

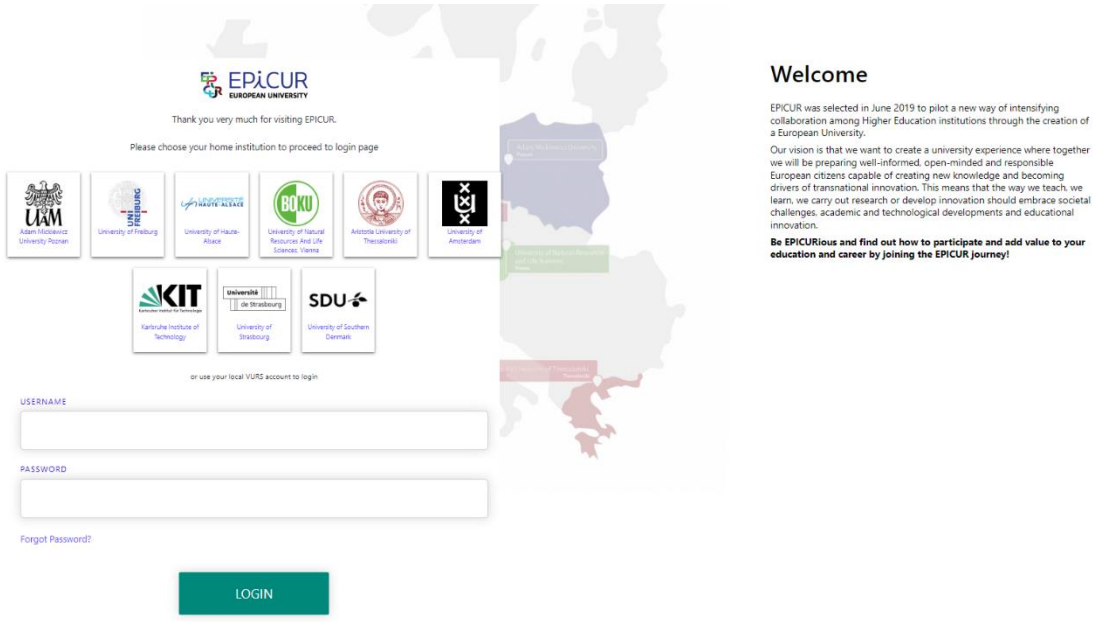

Figure 4: Access to the VURS functionality

Table 3: Access to the VURS functionality

Functionality Name	Access to the VURS
Actors	All Users
Input Data	Credentials in any institution of EPICUR partners
Description	The user

	• visits the application of EPICUR VURS that corresponds to the user group to which he/she belongs • is being redirected to Authorization Server of VURS in order to get access to the VURS functionalities where there are buttons icons of all the EPICUR partners' institutions and a login form • selects the institution in which has an account, and he/she is being redirected to the login page of the selected institution • After filling the correct credentials, is being redirected to the main page of VURS
Output Data	When the user clicks on an institution the message "Redirecting, please wait." appears until he/she is being redirected to the institution's login page. After validating user's credentials, the loading page displays to redirect the user to the main page (dashboard) of the VURS EPICUR. If the user puts invalid credentials in the login form, the message "Invalid username or password." appears.

2.3 Registrar

2.3.1 Preview Main Information

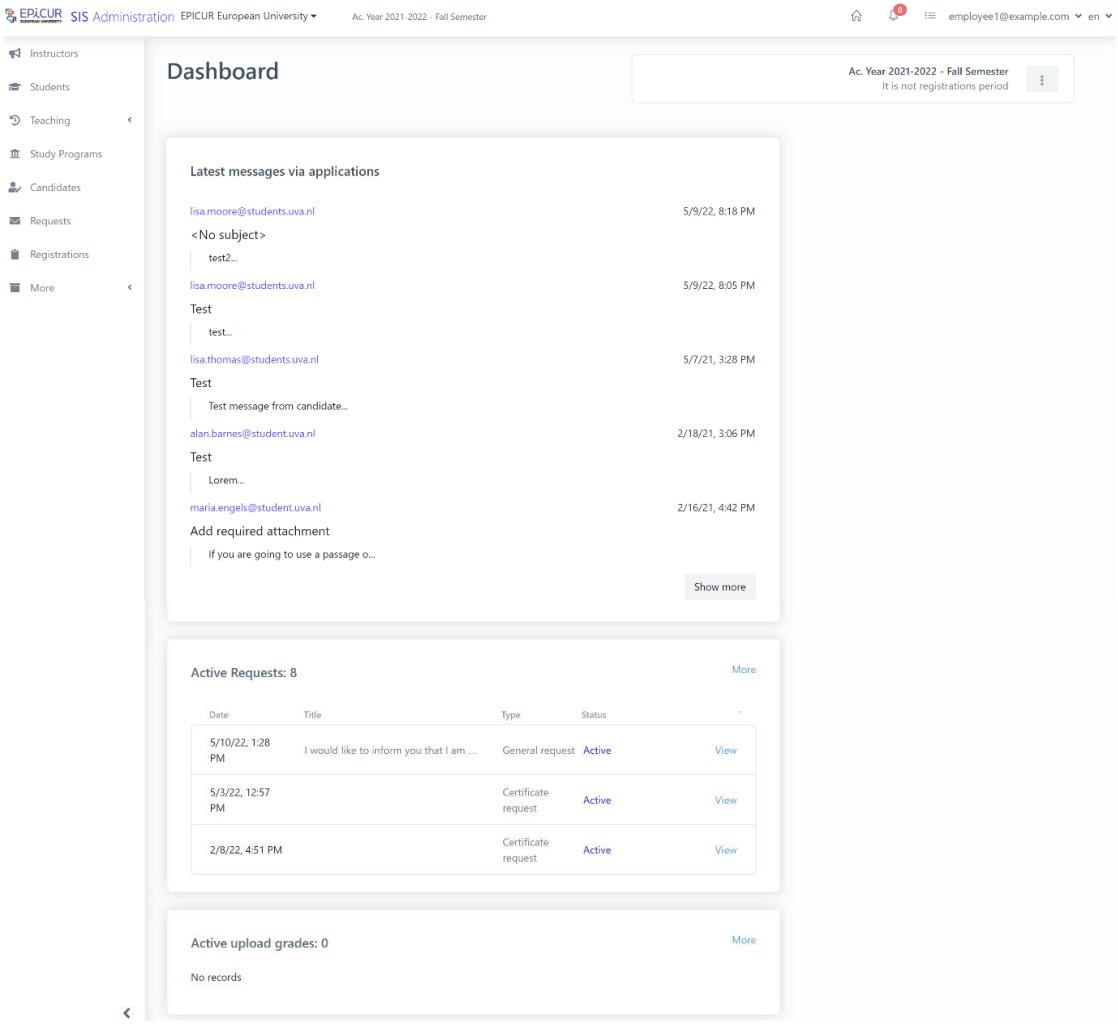

Figure 5: Preview Main Information functionality

Table 4: Preview Main Information functionality

Functionality Name	Preview Main Information

Actors	Administrators, Registrar Users
Input Data	-
Description	The user can view main entities of EPICUR VURS by selecting the home icon from the VURS's menu bar
Output Data	The page with the main entities of EPICUR VURS is loaded which are: latest messages via applications, active requests, exam participate requests, active upload grades.

2.3.2 Search Lecturer

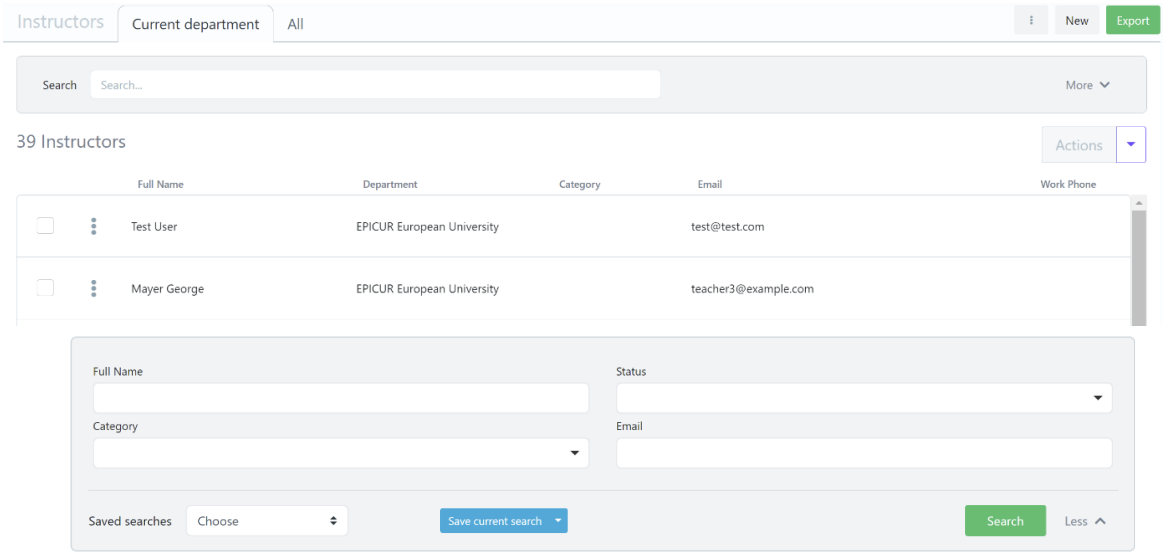

Figure 6: Search Lecturers functionality: a) List of Lecturers, b) Full search criteria

Table 5: Search Lecturers functionality

Functionality Name	Search Lecturers
Actors	Administrators, Registrar Users
Input Data	Optional: Full name, Status, Category. Email **Send message action**: Required: Subject, Write a short message
Description	The user can search a group of lecturers or a specific lecturer by following the steps: 1. selects the **Instructors** option from the VURS's sidebar menu 2. selects between current department lecturers (default option) and all lecturers from the tabs section 3. finds the group of lecturers or a specific lecturer on the list of instructors by searching/filtering lecturers (by Full name, Status, Category. Email) and by sorting them (by Full name, Department, Category. Email, Work Phone) **To communicate with lecturer(s)**: 4. check box next to each lecturer 5. clicks arrow button next to Actions 6. selects **Send message** option 7. completes the message form (Subject, Write a short message) and sends it
Output Data	The list of the lecturers that satisfy the defined requirements appears in the

	Instructors page. For “Send message” action, a loading bar appears and after the completion the popup form closes.

2.3.3 Preview Lecturer

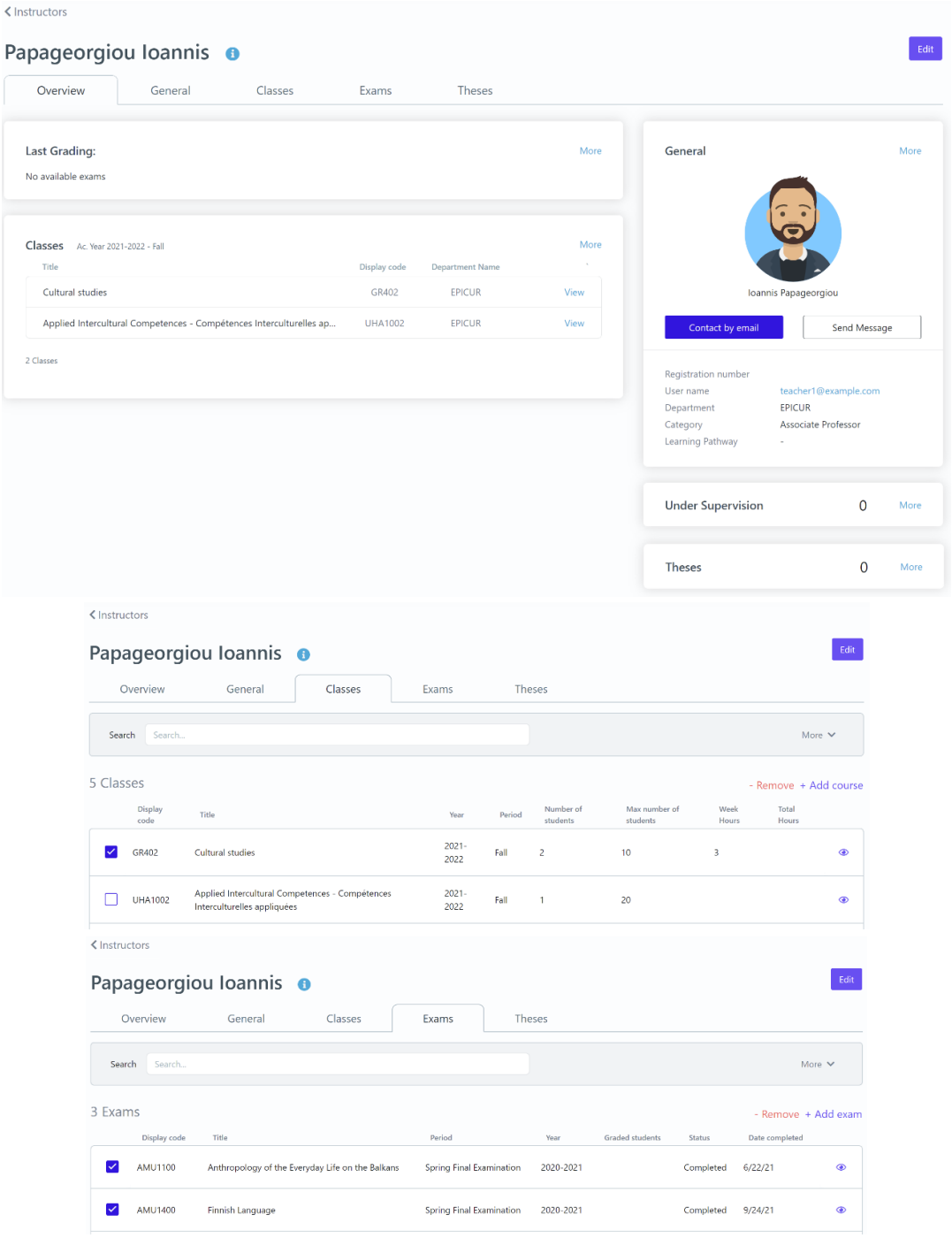

Figure 7: Preview Lecturer functionality: a) Overview tab, b) Classes tab, c) Exams tab

Table 6: Preview Lecturer functionality

Functionality Name	Preview Lecturer
Actors	Administrators, Registrar Users
Input Data	Optional: Full name, Status, Category. Email

Description	The user can view a lecturer's information by following the steps: 1. searches for a specific lecturer on **Instructors** page 2. clicks on the 3 dots next to the lecturer's name 3. selects **Preview** option **Add class action**: 4. selects **Classes** tab 5. clicks **+ Add course** button 6. selects course(s) by checking box(es) and clicks **Apply** button **Remove class action**: 4. selects **Classes** tab 5. selects course(s) by checking box(es) 6. clicks **- Remove** button 7. clicks **OK** button on the confirmation popup window **Add exam action**: 4. selects **Exams** tab 5. clicks **+ Add exam** button 6. selects exam(s) by checking box(es) and clicks **Apply** button **Remove exam action**: 4. selects **Exams** tab 5. selects exam(s) by checking box(es) and click **Apply** button 6. clicks **- Remove** button 7. clicks **OK** button on the confirmation popup window
Output Data	The page with all the lecturer's information is loaded where there are four tabs: Overview, General, Classes, Exams, Theses. Upon adding or removing classes/exams to a lecturer, a completion message appears and the list of classes/exams is updated.

2.3.4 Insert Lecturer

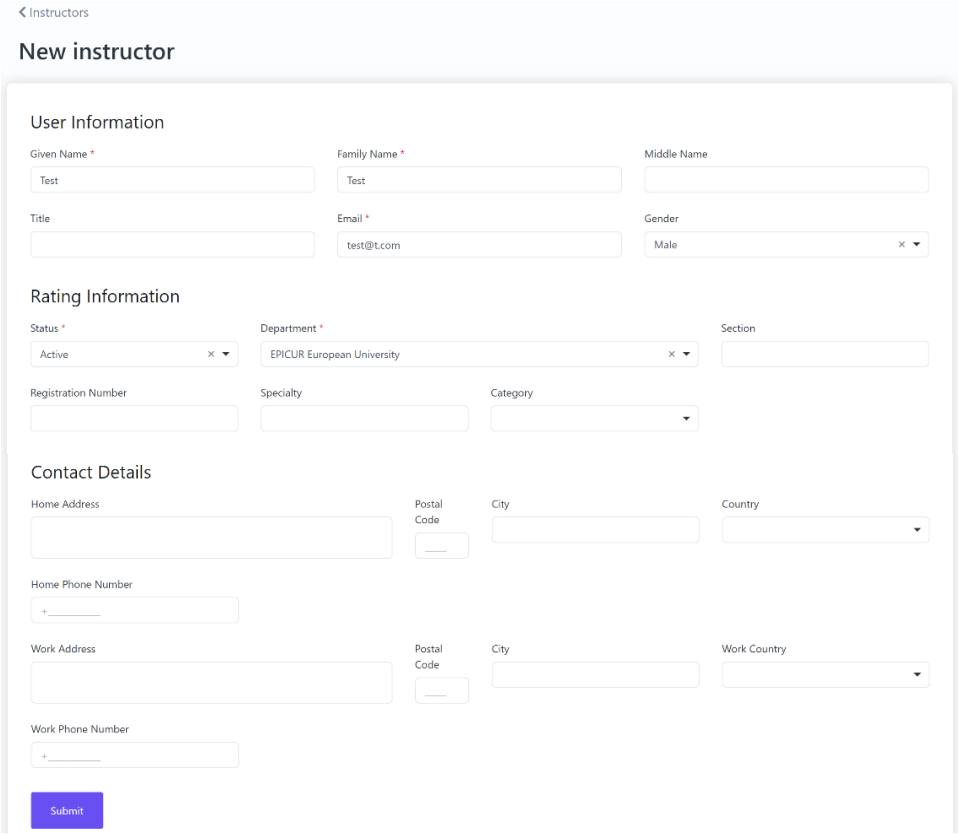

Figure 8: Insert Lecturer functionality

Table 7: Insert Lecturer functionality

Functionality Name	Insert Lecturer
Actors	Administrators, Registrar Users

Input Data	• User Information:
	  • Required: Given Name, Family Name, Email
	  • Optional: Middle Name, Title, Gender
	• Rating Information:
	  • Required: Status, Department
	  • Optional: Section, Registration Number, Specialty, Category
	• Contact Details:
	  • Optional: Home Address, Postal Code, City, Country, Home Phone Number, Work Address, Postal Code, City, Work Country, Work Phone Number

Description	The user can add a lecturer by following the steps: 1. selects the **Instructors** option from the VURS's sidebar menu 2. clicks the button **New** 3. completes the new instructor form and submits it To be enabled the submit button, at least the required fields of the form needs to be completed.
Output Data	A completion popup message is shown after the user's submission and the lecturer would be in the instructors list. If the user has given an invalid email, he/she cannot process to the submission and an indication "Email must be a valid email." appears.

2.3.5 *Edit Lecturer*

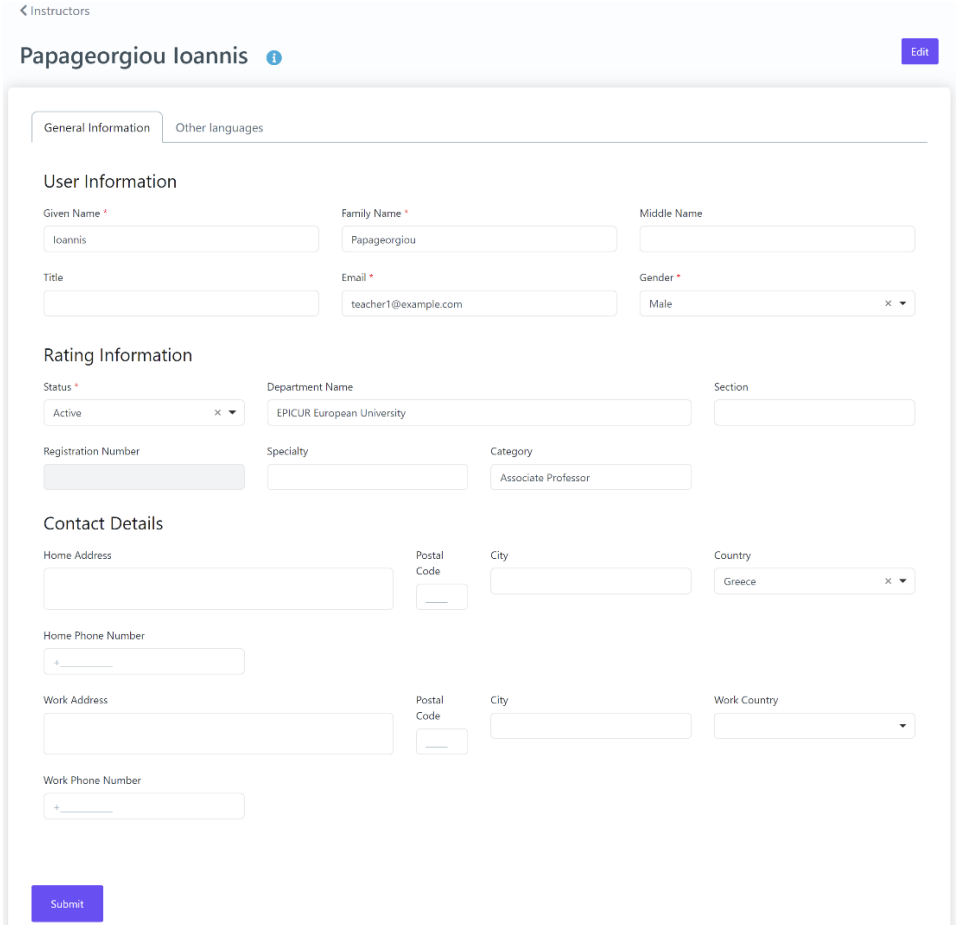

Figure 9: Edit Lecturer functionality

Table 8: Edit Lecturer functionality

Functionality Name	Edit Lecturer
Actors	Administrators, Registrar Users

Input Data	• **User Information:**
	  • Required: Given Name, Family Name, Email
	  • Optional: Middle Name, Title, Gender
	• **Rating Information:**
	  • Required: Status, Department
	  • Optional: Section, Registration Number, Specialty, Category
	• **Contact Details:**
	  • Optional: Home Address, Postal Code, City, Country, Home Phone Number, Work Address, Postal Code, City, Work Country, Work Phone Number

Description	The user can change a lecturer's information by following the steps: 1. searches for a specific lecturer on **Instructors** page 2. clicks on the 3 dots next to the lecturer's name 3. selects **Edit** option. There is also an **Edit** button in the lecturer's preview page. 4. changes lecturer's information by editing his/her form and submits it

Output Data	A completion popup message is shown after the user's submission and the lecturer's preview page appears.

2.3.6 Search Students

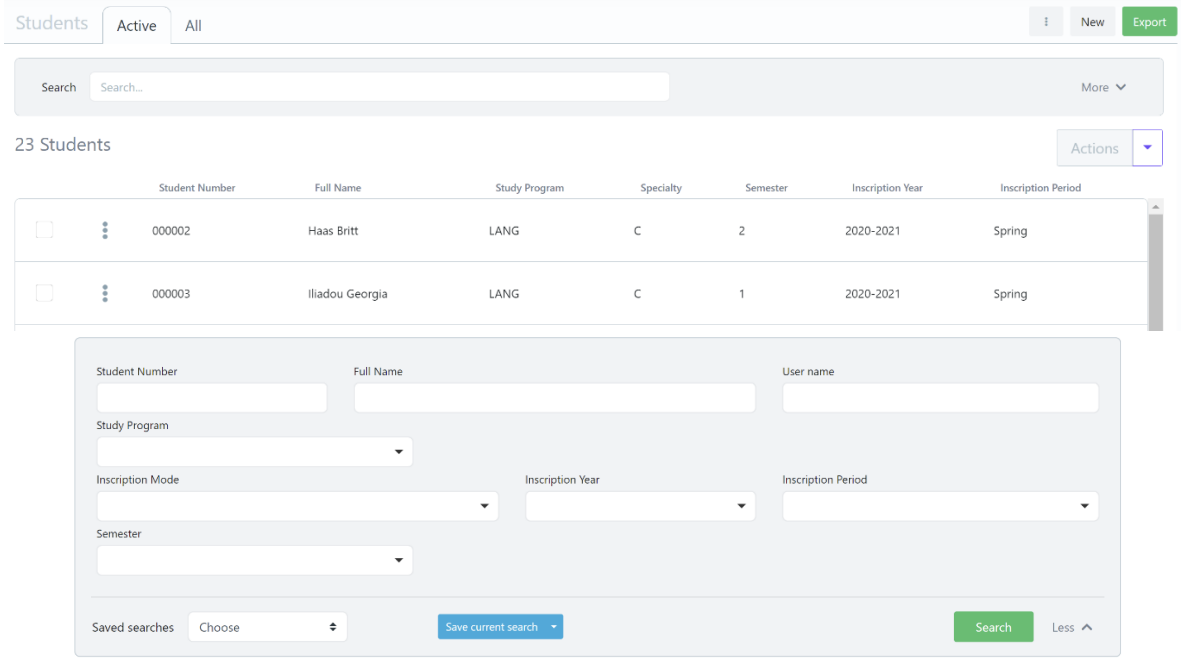

Figure 10: Search Students functionality: a) List of Students, b) Full search criteria

Table 9: Search Students functionality

Functionality Name	Search Students
Actors	Administrators, Registrar Users
Input Data	Optional: Student number, Full name, User name, Study program, Inscription mode, Inscription year, Inscription Period, Semester **Send message action**: • Required: Subject, Write a short message
Description	The user can search a group of lecturers or a specific lecturer by following the steps: 1. selects the **Students** option from the VURS's sidebar menu 2. selects between active students (default option) and all students from the tabs section 3. finds the group of students or a specific student on the list of students by searching/filtering students (by Student number, Full name, User name, Study program, Inscription mode, Inscription year, Inscription Period, Semester) and by sorting them (by Student number, Full name, Study program, Specialty, Semester, Inscription year, Inscription Period) **To communicate with student(s)**: 4. check box next to each student 5. clicks arrow button next to Actions 6. selects **Send message** option completes the message form (Subject, Write a short message) and sends it The user can also perform the actions for student(s) (by selecting student(s)

	and clicking arrow button next to Actions): Calculate semester Change study program, Change specialty, Add program group, Request document.
Output Data	The list of the students that satisfy the defined requirements appears in the **Students** page. For "Send message" action, a loading bar appears and after the completion, the popup form closes.

2.3.7 Preview Student

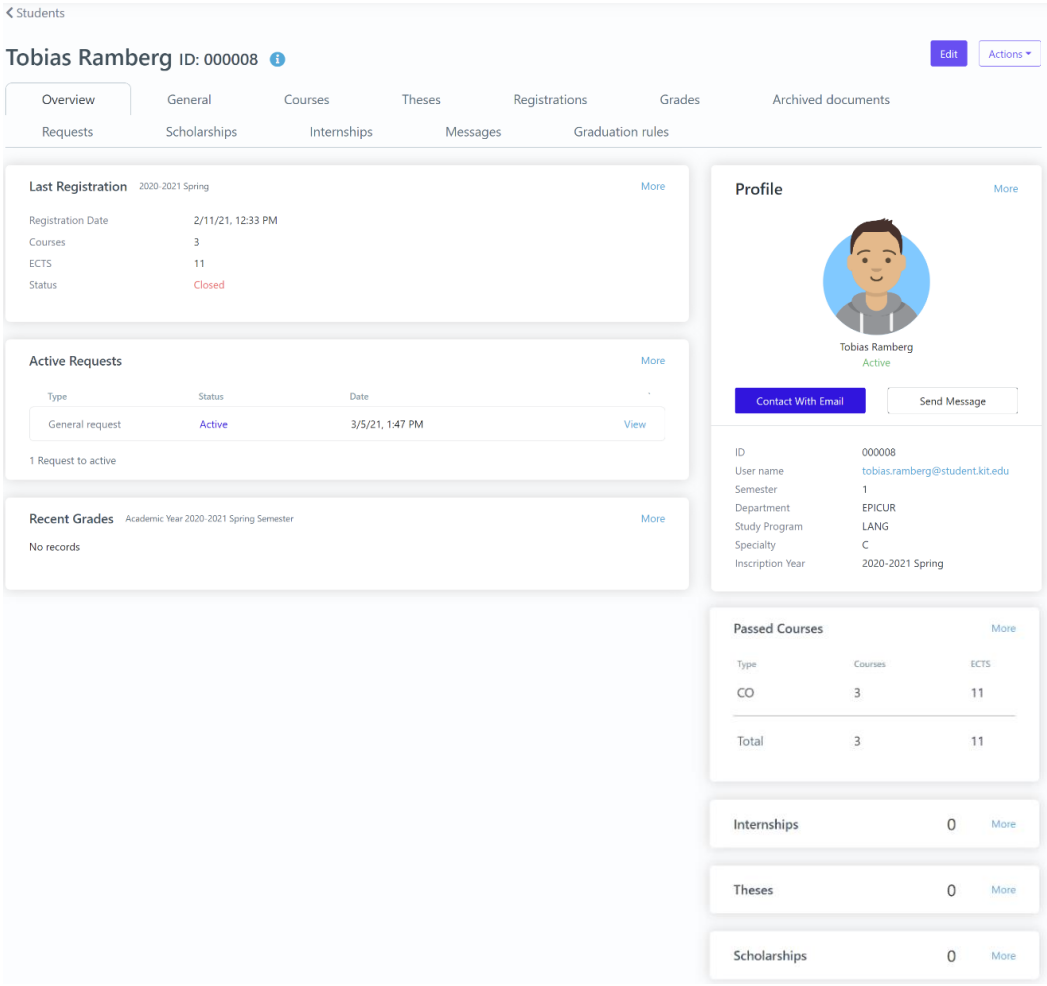

Figure 11: Preview Student functionality

Table 10: Preview Student functionality

Functionality Name	Preview Student
Actors	Administrators, Registrar Users
Input Data	Optional: Student number, Full name, User name, Study program, Inscription mode, Inscription year, Inscription Period, Semester **Send message action**: • Required: Subject, Body • Optional: Attach files
Description	The user can view a student's information by following the steps: 1. searches for a specific student on **Students** page 2. clicks on the 3 dots next to the student's name 3. selects **Preview** option

	To communicate with student: 4. clicks **Send message** button on Profile section 5. completes the message form (Subject, Body, Attach files) and sends it 6. clicks **OK** button on confirmation window. There is the option to send email to student by clicking **Contact With Email** button, too The user can also perform the actions (by clicking **Actions** button): Preview study program, Request for student removal, Request for student suspension, Export report, New internship, Request document.
Output Data	The page with all the student's information is loaded where there are twelve tabs: Overview, General, Courses, Theses, Registrations, Grades, Archived documents, Requests, Scholarships, Internships, Messages, Graduation rules. For "Send message" action, a completion popup message shows up.

2.3.8 Edit Student

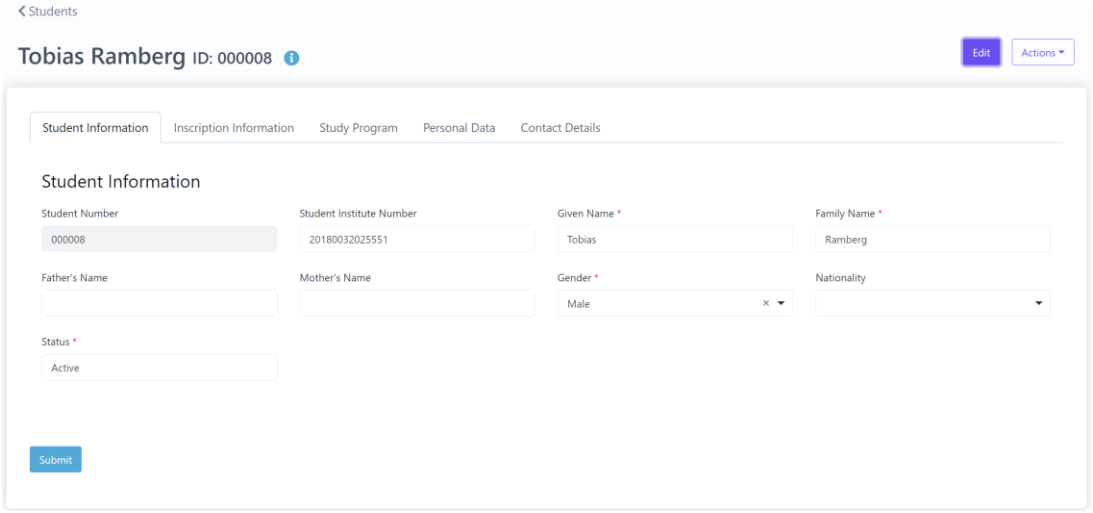

Figure 12: Edit Student functionality

Table 11: Edit Student functionality

Functionality Name	Edit Student
Actors	Administrators, Registrar Users

Input Data	• **Student Information:**
	  • Required: Given Name, Family Name, Gender, Status
	  • Optional: Student Institute Number, Father's Name, Mother's Name, Nationality
	• **Inscription Information:**
	  • Required: Inscription Year, Inscription Period, Inscription semester, Inscription date, Inscription mode
	  • Optional: Inscription Mode Category, Inscription index, Inscription decision, Inscription Number, Inscription points, Home institute, Home department/faculty, Home department/faculty description, Inscription Comments
	• **Study Program:**
	  • Required: Department
	  • Optional: Study Program

	• **Personal Data:**
	  • Optional: Citizen Information (Identity Card, Identity Type, Identity Date, Identity Authority, Citizen Registrar, Citizen Registrar Place, Citizen Registrar Region, Vat Number, Vat Office, SSN), Personal Information (Birth Date, Birth Place, Country, Birth Place Region, Spouse Name, Family Status, Military Status)
	• **Contact Details:**
	  • Optional: Home Contact Details (Country, Region, Postal Code, City, Address, Phone, Mobile Phone, Email), Temporary Contact Details (Country, Region, Postal Code, City, Address, Phone)

Description	The user can change a student's information by following the steps: 1. searches for a specific student on **Students** page 2. clicks on the 3 dots next to the student's name 3. selects **Edit** option. There is also an **Edit** button in the student's preview page. 4. changes student's information by editing his/her form and submits it
Output Data	A completion popup message is shown after the user's submission and the student's preview page appears.

2.3.9 Document request on behalf of student

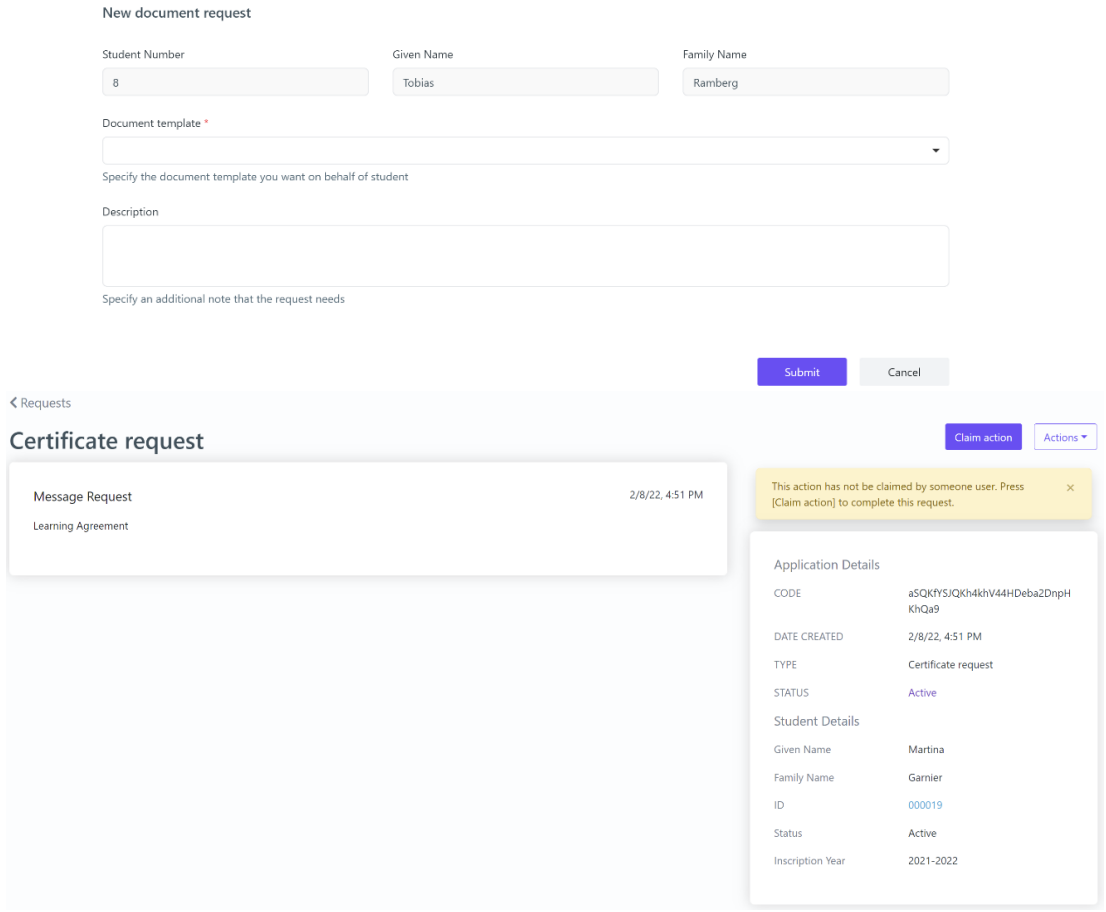

Figure 13: Document request on behalf of student functionality: a) request form, b) incomplete request

Table 12: Document request on behalf of student functionality

Functionality Name	Document request on behalf of student

Actors	Administrators, Registrar Users
Input Data	• Required: Document Template • Optional: Description
Description	The user can request for a document on behalf of a student by following the steps: 1. searches for a specific student on **Students** page 2. clicks on the 3 dots next to the student's name 3. selects **Preview** option 4. selects **Request document** option from **Actions** button 5. completes the form and submits it
Output Data	If the user has not selected the document template which is necessary, the message "Document type is missing" appears and the submission is not completed. Otherwise, the request page is loaded and the message "This action has not be claimed by someone user. Press [Claim action] to complete this request." is shown. Claim action button finalize the document request.

2.3.10 Export student's report

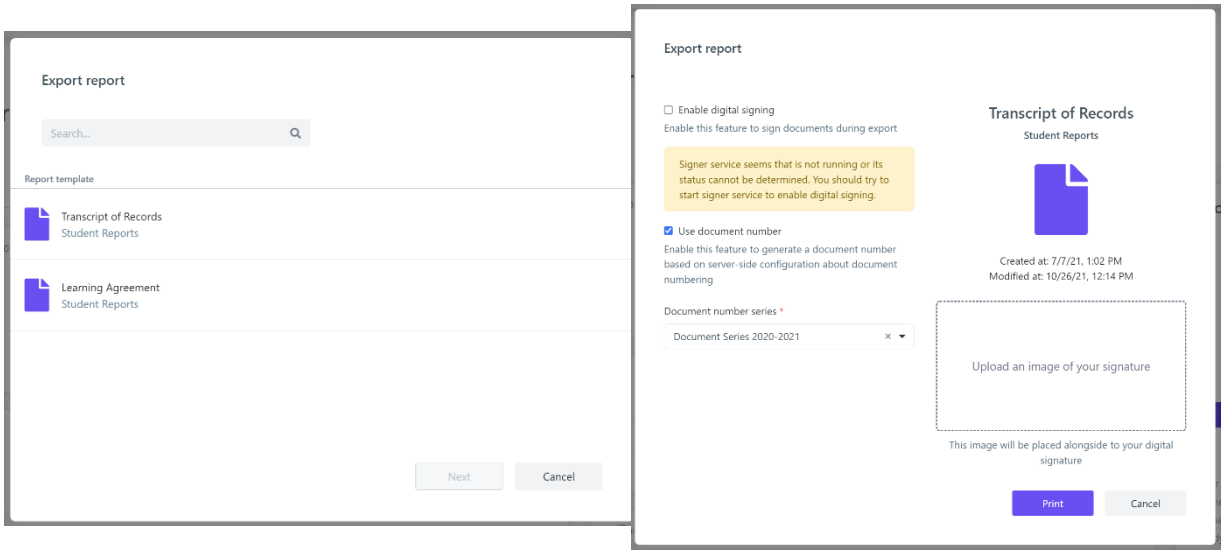

Figure 14: Export student's report functionality

Table 13: Export student's report functionality

Functionality Name	Export student's report
Actors	Administrators, Registrar Users
Input Data	• Required: Report Template, Document number series • Optional: Digital signing, Document number, Image of signature
Description	The user can export a student's report by following the steps: 1. searches for a specific student on **Students** page 2. clicks on the 3 dots next to the student's name 3. selects **Preview** option 4. selects **Export report** option from **Actions** button 5. selects report template and the **Next** button is enabled 6. chooses if wants to enable digital signing, use of document number and upload an image of signature. Then, clicks **Print** button to export the report. If the feature use document number is enabled the document number series is required and the print button is disabled.

Output Data	The report is loaded and there are three options: download file, print file or close it to return in the previous page.

2.3.11 Search Courses

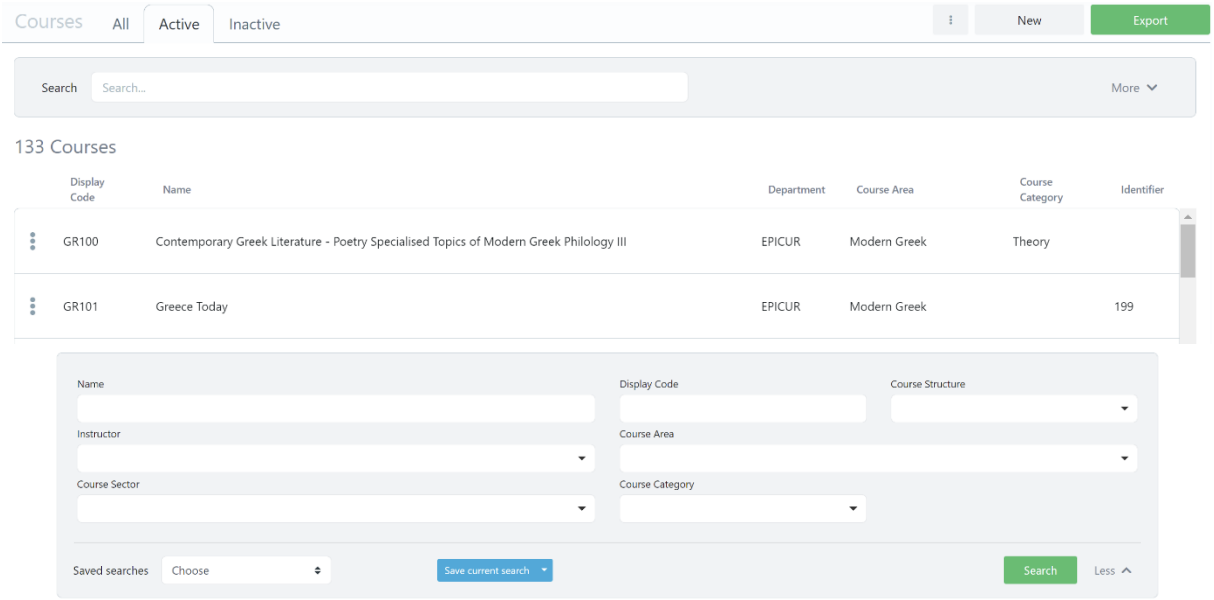

Figure 15: Search Courses functionality: a) List of Courses, b) Full search criteria

Table 14: Search Courses functionality

Functionality Name	Search Courses
Actors	Administrators, Registrar Users
Input Data	Optional: Name, Display Code, Course Structure, Instructor, Course Area, Course Sector, Course Category
Description	The user can search a group of courses or a specific course by following the steps: 1. selects the **Teaching->Courses** option from the VURS's sidebar menu 2. selects between all courses, active courses (default option) and inactive courses from the tabs section 3. finds the group of courses or a specific course on the list of courses by searching/filtering courses (by Name, Display Code, Course Structure, Instructor, Course Area, Course Sector, Course Category) and by sorting them (by Display Code, Name, Department, Course Area, Course Category, Identifier)
Output Data	The list of the courses that satisfy the defined requirements appears in the **Courses** page.

2.3.12 Preview Course

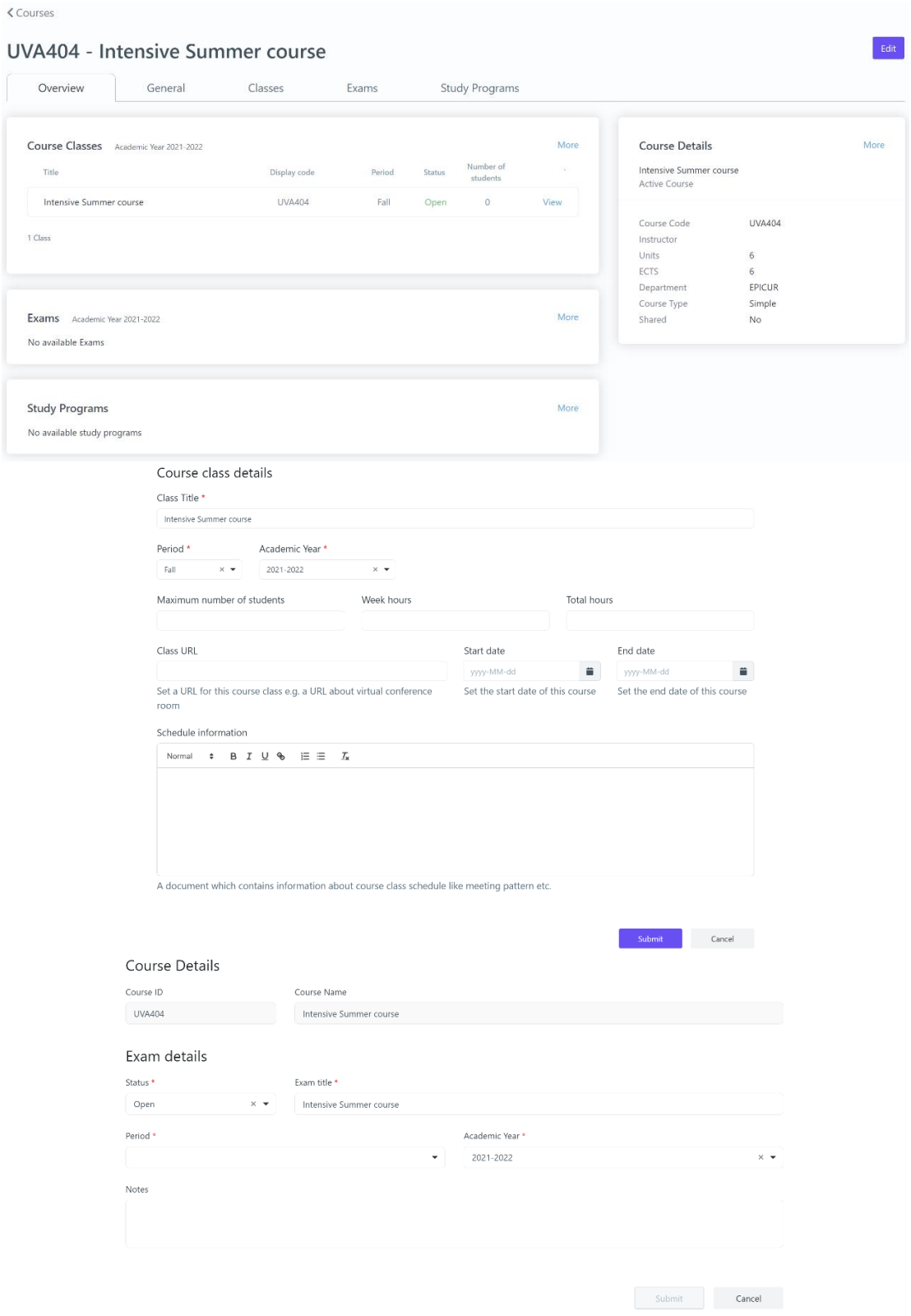

Figure 16: Preview Course functionality: a) Overview tab, b) Add class form, c) Add exam form

Table 15: Preview Course functionality

Functionality Name	Preview Course
Actors	Administrators, Registrar Users

Input Data	Optional: Name, Display Code, Course Structure, Instructor, Course Area, Course Sector, Course Category, **Add class action**: – Required: Class Title, Period, Academic Year – Optional: Maximum number of students, Week hours, Total hours, Class URL, Start date, End date, Schedule information **Add exam action**: – Required: Status, Exam title, Period, Academic Year – Optional: Notes
Description	The user can view a course's information by following the steps: 1. searches for a specific course on **Courses** page 2. clicks on the 3 dots next to the course 3. selects **Preview** option **Add class action**: 4. selects **Classes** tab 5. clicks **+ Add class** button 6. completes course class details form and clicks **Submit** button **Add exam action**: 4. selects **Exams** tab 5. clicks **+ Add exam** button 6. completes exam details form and clicks **Submit** button
Output Data	The page with all the course's information is loaded where there are five tabs: Overview, General, Classes, Exams, Study Programs. Upon adding classes/exam, a completion message appears and the list of classes/exams is updated.

2.3.13 Create Course

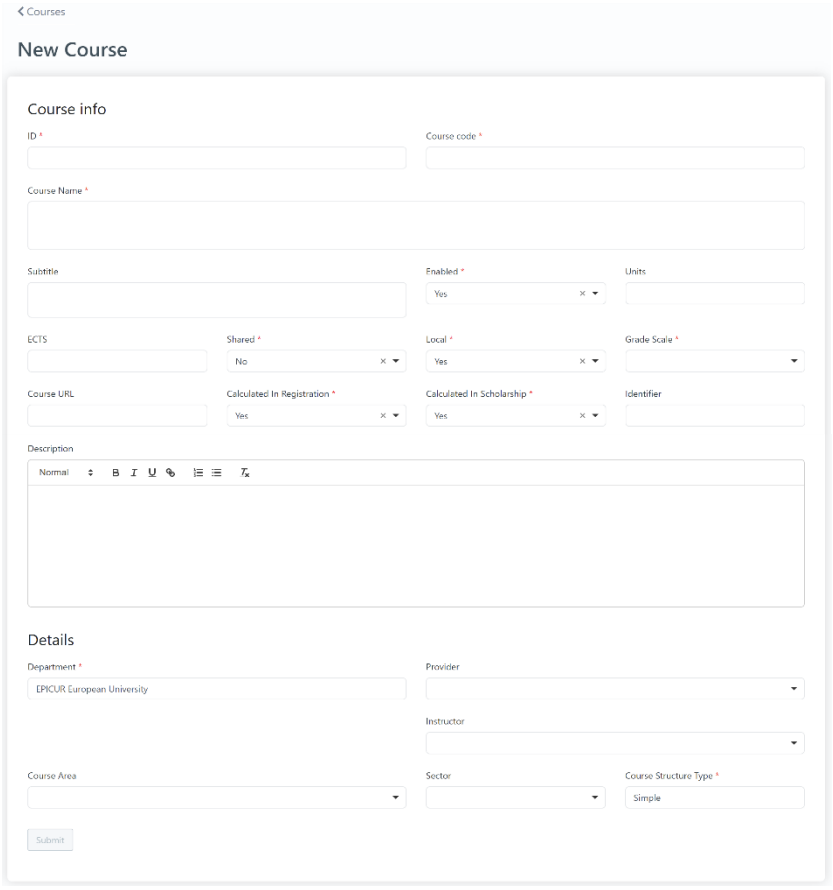

Figure 17: Create Course functionality

Table 16: Create Course functionality

Functionality Name	Create Course
Actors	Administrators, Registrar Users
Input Data	• **Course info**: – Required: ID, Course code, Course Name, Enabled, Shared, Local, Grade Scale, Calculated In Registration, Calculated In Scholarship – Optional: Subtitle, Units, ECTS, Course URL, Identifier, Description • **Details**: – Required: Department, Course Structure Type – Optional: Provider (Provider department/faculty), Instructor, Course Area, Sector
Description	The user can create a new course by following the steps: 1. selects the **Teaching->Courses** option from the VURS's sidebar menu 2. clicks the button **New** 3. completes the new course form and submitting it To be enabled the submit button, at least the required fields of the form needs to be completed.
Output Data	A completion popup message is shown after the user's submission and the course would be in the courses list.

2.3.14 Edit Course

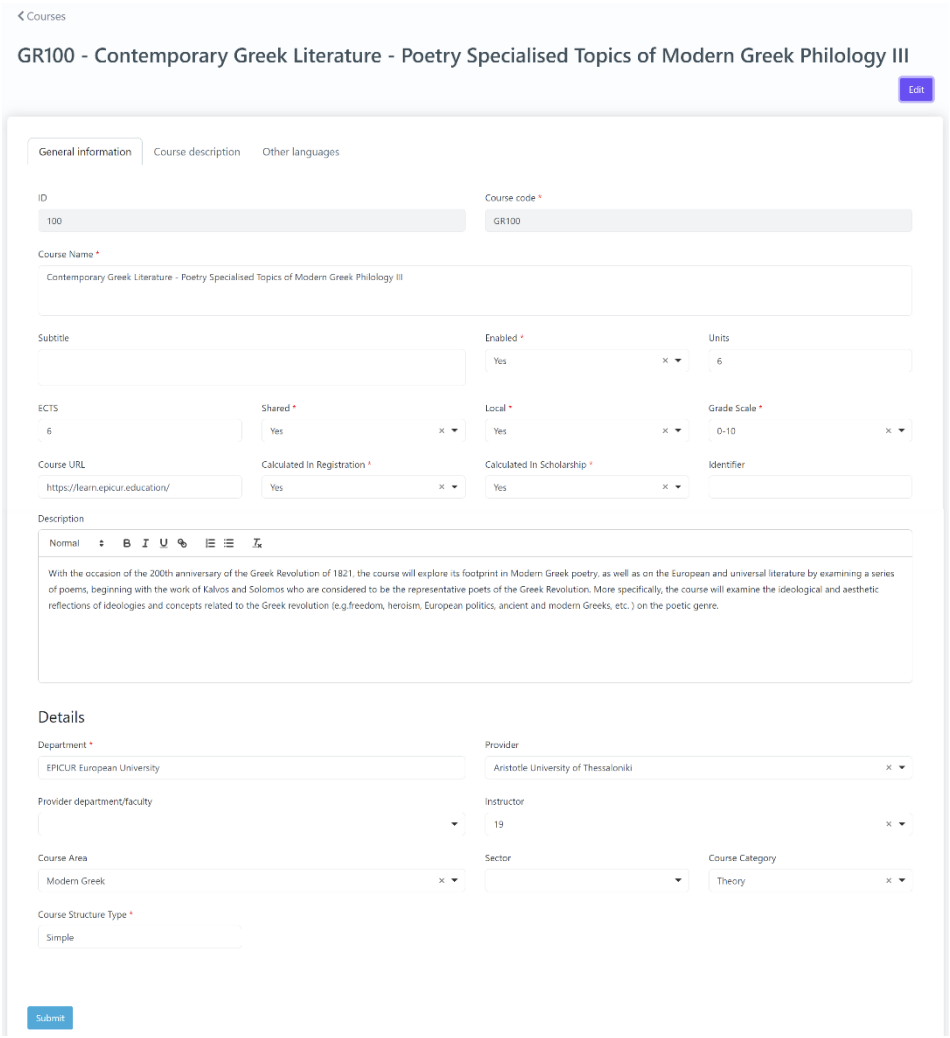

Figure 18: Edit Course functionality

Table 17: Edit Course functionality

Functionality Name	Edit Course
Actors	Administrators, Registrar Users

Input Data	• **General information:**
	  • Required: ID, Course code, Course Name, Enabled, Shared, Local, Grade Scale, Calculated In Registration, Calculated In Scholarship, Details (Department, Course Structure Type)
	  • Optional: Subtitle, Units, ECTS, Course URL, Identifier, Description, Details (Provider, Instructor, Course Area, Sector)
	• **Course description:**
	  • Optional: Course syllabus, Learning outcome, General competencies, Additional information, Additional course url, Language of instruction, Focus language, Bibliography

Description	The user can change a course's information by following the steps: 1. searches for a specific course on **Courses** page 2. clicks on the 3 dots next to the specific course 3. selects **Edit** option. There is also an **Edit** button in the course's preview page. 4. changes course's information by editing the form and submits it

Output Data	A completion popup message is shown after the user's submission and the course's preview page appears.

2.3.15 Search Classes

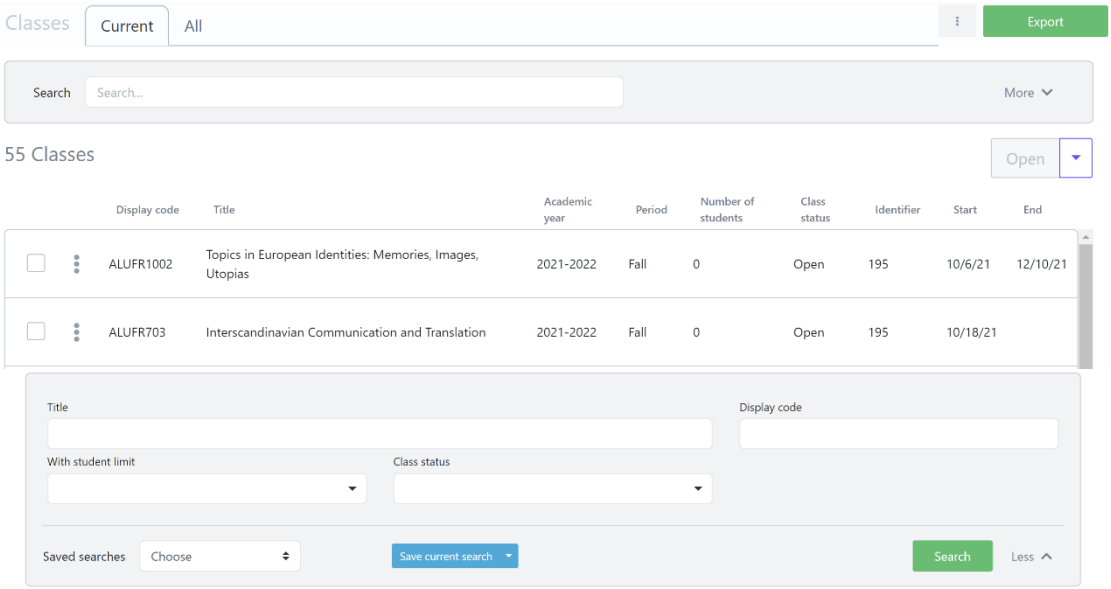

Figure 19: Search Classes functionality: a) List of Classes, b) Full search criteria

Table 18: Search Classes functionality

Functionality Name	Search Classes
Actors	Administrators, Registrar Users
Input Data	Optional: Title, Display Code, With student limit, Class status
Description	The user can search a group of classes or a specific class by following the steps: 1. selects the **Teaching->Classes** option from the VURS's sidebar menu 2. selects between current classes (default option) and all classes from the tabs section 3. finds the group of classes or a specific class on the list of classes by searching/filtering classes (by Title, Display Code, With student limit, Class status) and by sorting them (by Display Code, Title, Academic year, Period, Number of students, Class status, Identifier, Start, End) The user can also perform the actions for class(es) (by selecting class(es) and clicking arrow button next to Open): Open, Close, Copy, Delete, Create exams.
Output Data	The list of the classes that satisfy the defined requirements appears in the **Classes** page.

2.3.16 *Preview Class*

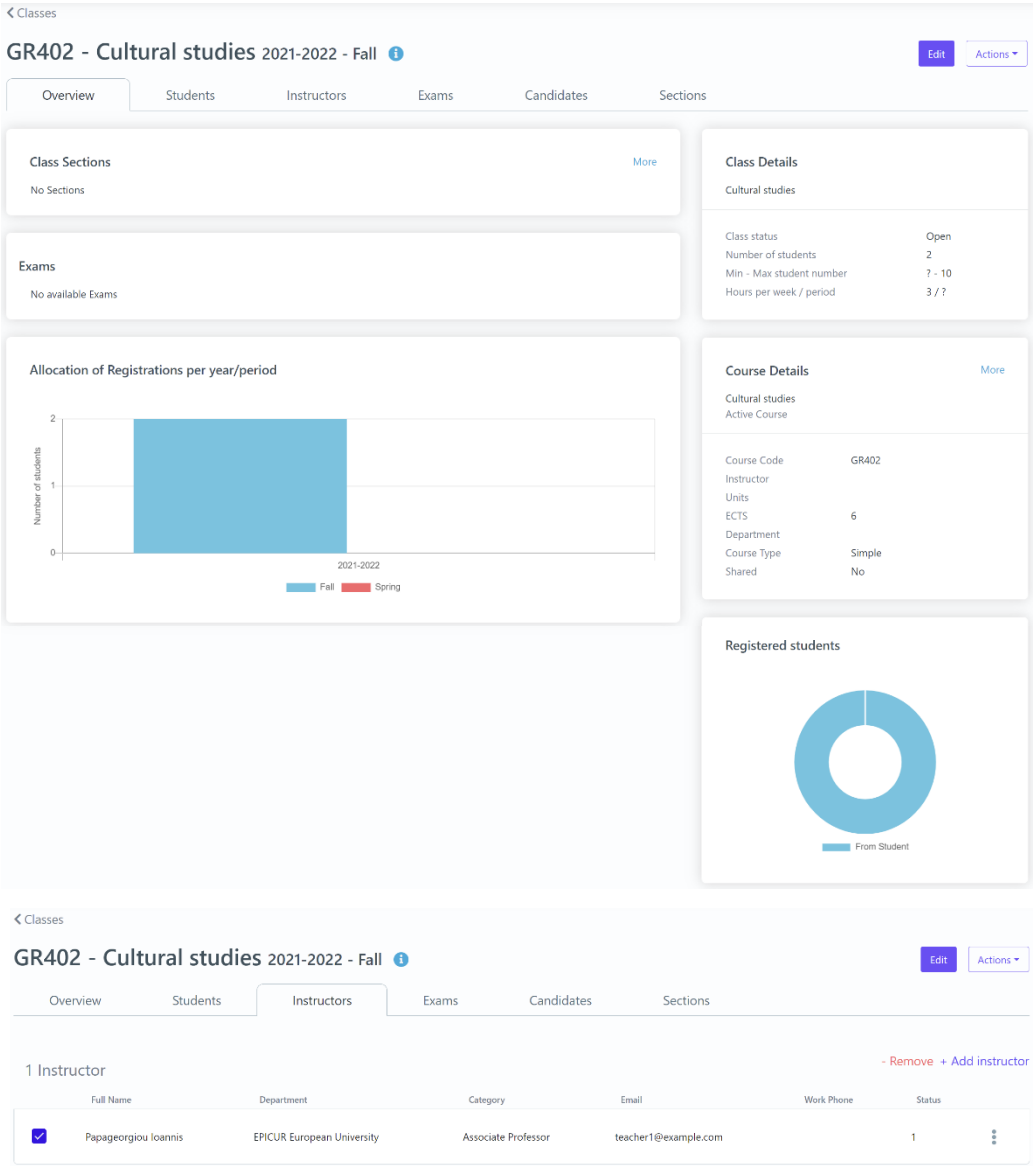

Figure 20: Preview Class functionality: a) Overview tab, b) Instructors tab

Table 19: Preview Class functionality

Functionality Name	Preview Class
Actors	Administrators, Registrar Users
Input Data	Optional: Title, Display Code, With student limit, Class status
Description	The user can view a class's information by following the steps: 1. searches for a specific class on **Classes** page 2. clicks on the 3 dots next to the class 3. selects **Preview** option **Add lecturer action**: 4. selects **Instructors** tab 5. clicks **+ Add instructor** button 6. selects lecturer(s) by checking box(es) and clicks **Apply** button **Remove lecturer action**: 4. selects **Instructors** tab

	5. selects lecturer (s) by checking box(es) 6. clicks - **Remove** button 7. clicks **OK** button on the confirmation popup window
Output Data	The page with all the class's information is loaded where there are six tabs: Overview, Students, Instructors, Exams, Candidates, Sections. Upon adding or removing lecturers to a class, a completion message appears and the list of lecturers is updated.

2.3.17 Edit Class

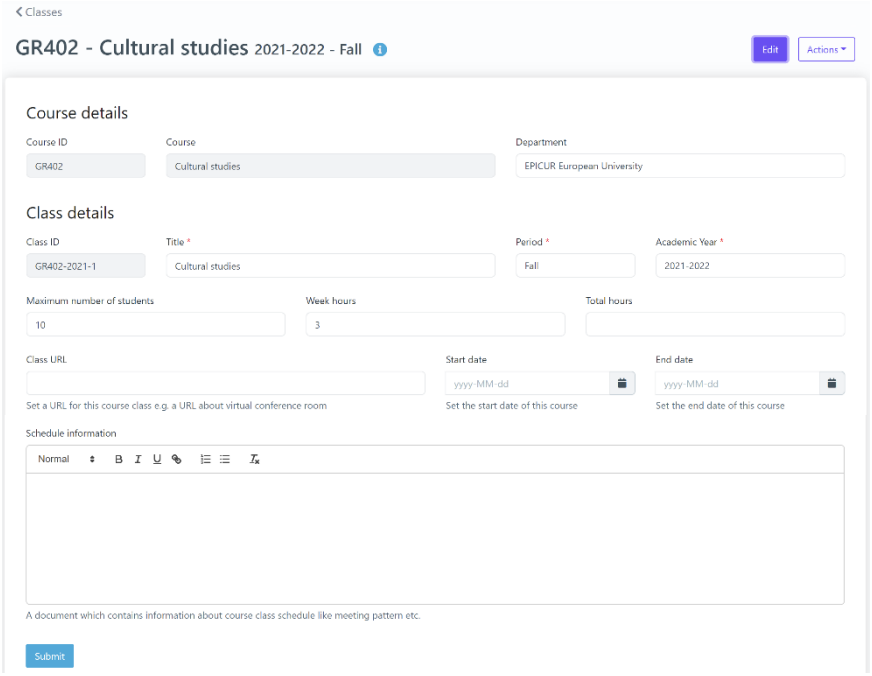

Figure 21: Edit Class functionality

Table 20: Edit Class functionality

Functionality Name	Edit Class
Actors	Administrators, Registrar Users

Input Data	• **Class Details:**
	  • Required: Title
	  • Optional: Maximum number of students, Week hours, Total hours, Class URL, Start date, End date, Schedule information

Description	The user can change a class's information by following the steps: 1. searches for a specific course on **Classes** page 2. clicks on the 3 dots next to the specific class 3. selects **Edit** option. There is also an **Edit** button in the class's preview page. 4. changes class's information by editing the form and submits it
Output Data	A completion popup message is shown after the user's submission and the class's preview page appears.

2.3.18 Search Course Exams

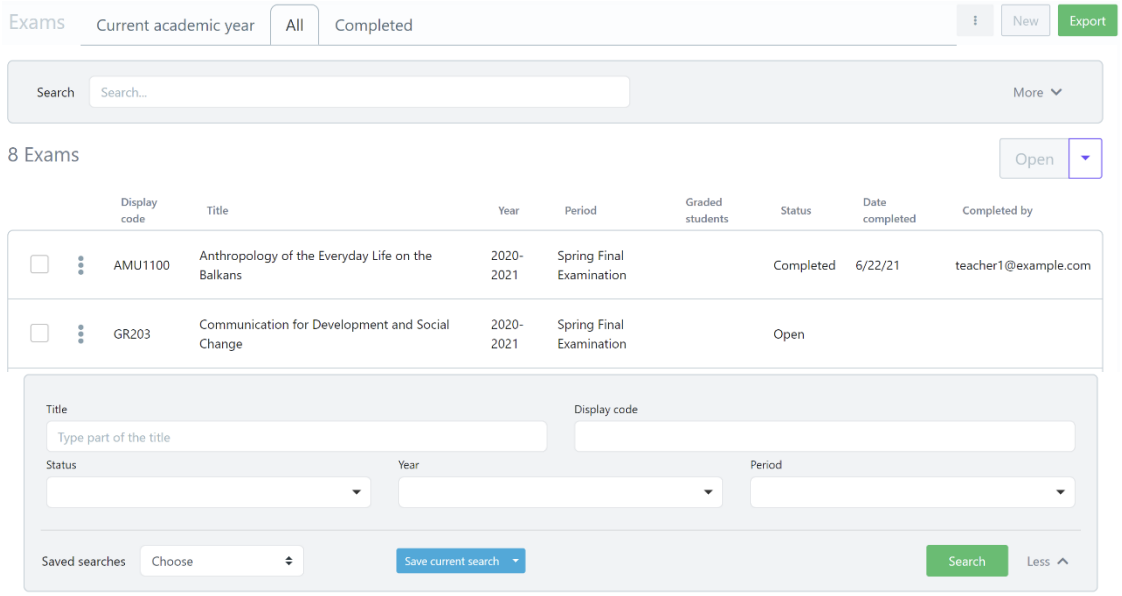

Figure 22: Search Course Exams functionality: a) List of Course Exams, b) Full search criteria

Table 21: Search Course Exams functionality

Functionality Name	Search Course Exams
Actors	Administrators, Registrar Users
Input Data	Optional: Title, Display Code, Status, Period
Description	The user can search a group of course exams or a specific course exam by following the steps: 1. selects the **Teaching->Exams** option from the VURS's sidebar menu 2. selects between current academic year exams (default option), completed exams and all exams from the tabs section 3. finds the group of course exams or a specific course exam on the list of course exams by searching/filtering exams (by Title, Display Code, Status, Period) and by sorting them (by Display Code, Title, Year, Period, Graded students, Status, Date completed, Completed by) The user can also perform the actions for exam(s) (by selecting exam(s) and clicking arrow button next to Open): Open, Close, Delete.
Output Data	The list of the course exams that satisfy the defined requirements appears in the **Exams** page.

2.3.19 Preview Course Exam

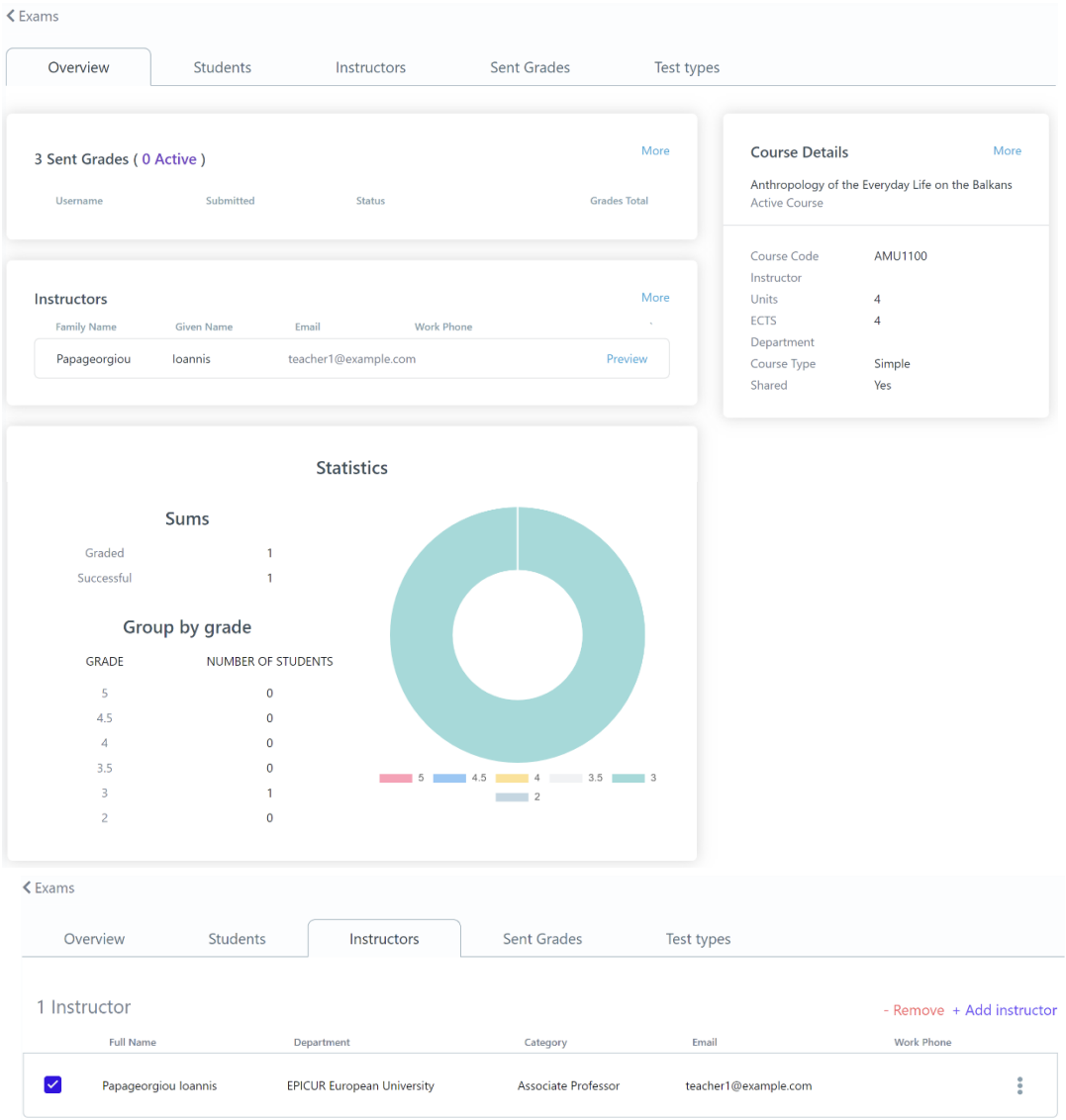

Figure 23: Preview Course Exam functionality a) Overview tab, b) Instructors tab

Table 22: Preview Course Exam functionality

Functionality Name	Preview Course Exam
Actors	Administrators, Registrar Users
Input Data	Optional: Title, Display Code, Status, Period
Description	The user can view a course exam's information by following the steps: 1. searches for a specific course exam on **Exams** page 2. clicks on the 3 dots next to the class 3. selects **Preview** option **Add lecturer action**: 4. selects **Instructors** tab 5. clicks **+ Add instructor** button 6. selects lecturer(s) by checking box(es) and clicks **Apply** button **Remove lecturer action**: 4. selects **Instructors** tab 5. selects lecturer (s) by checking box(es) 6. clicks **- Remove** button

	7. clicks **OK** button on the confirmation popup window
Output Data	The page with all the course exam's information is loaded where there are five tabs: Overview, Students, Instructors, Sent Grades, Test types. Upon adding or removing lecturers to a course exam, a completion message appears and the list of lecturers is updated

2.3.20 Edit Course Exam

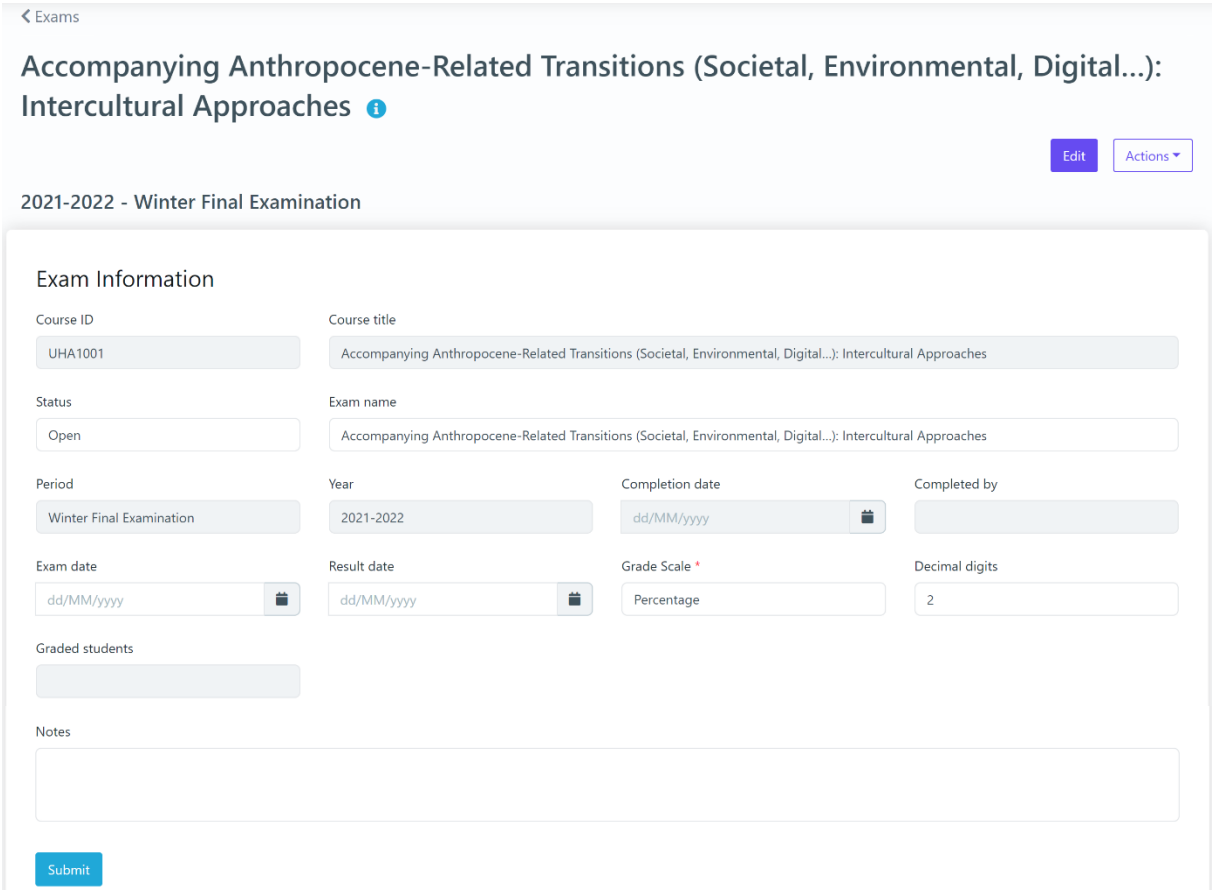

Figure 24: Edit Course Exam functionality

Table 23: Edit Course Exam functionality

Functionality Name	Edit Course Exam
Actors	Administrators, Registrar Users
Input Data	• **Exam Information:** • Optional: Exam name, Exam date, Result date, Decimal digits, Notes
Description	The user can change a course exam's information by following the steps: 1. searches for a specific course on **Exams** page 2. clicks on the 3 dots next to the specific course exam 3. selects **Edit** option. There is also an **Edit** button in the course exam's preview page. 4. changes course exam's information by editing the form and submits it
Output Data	A completion popup message is shown after the user's submission and the course exam's preview page appears.

2.3.21 Grade Submission action

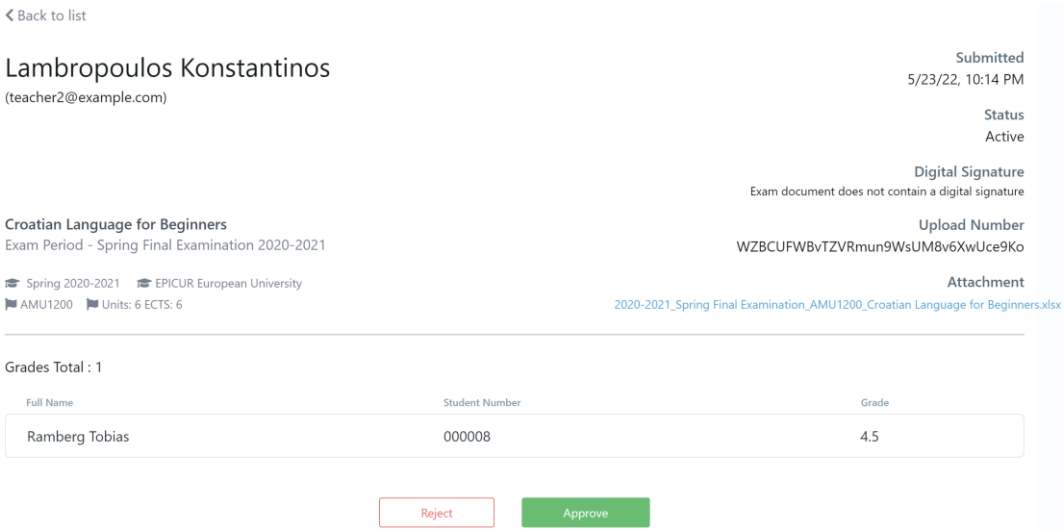

Figure 25: Grade Submission action functionality

Table 24: Grade Submission action functionality

Functionality Name	Grade Submission action
Actors	Administrators, Registrar Users
Input Data	-
Description	The user can accept/reject a grade submission by following the steps: 1. visits the preview page of a specific course exam 2. selects **Sent Grades** tab 3. clicks on grades submission with an active status by selecting **More** option and **Show** button in Submitted Grades category. 4. clicks Approve or Reject button 5. clicks **YES** button on confirmation popup window
Output Data	A completion message shows up. If the user selects to approve the grades submission, the status changes to **Completed**. Otherwise, the status changes to **Failed**.

2.3.22 Search Mobilities

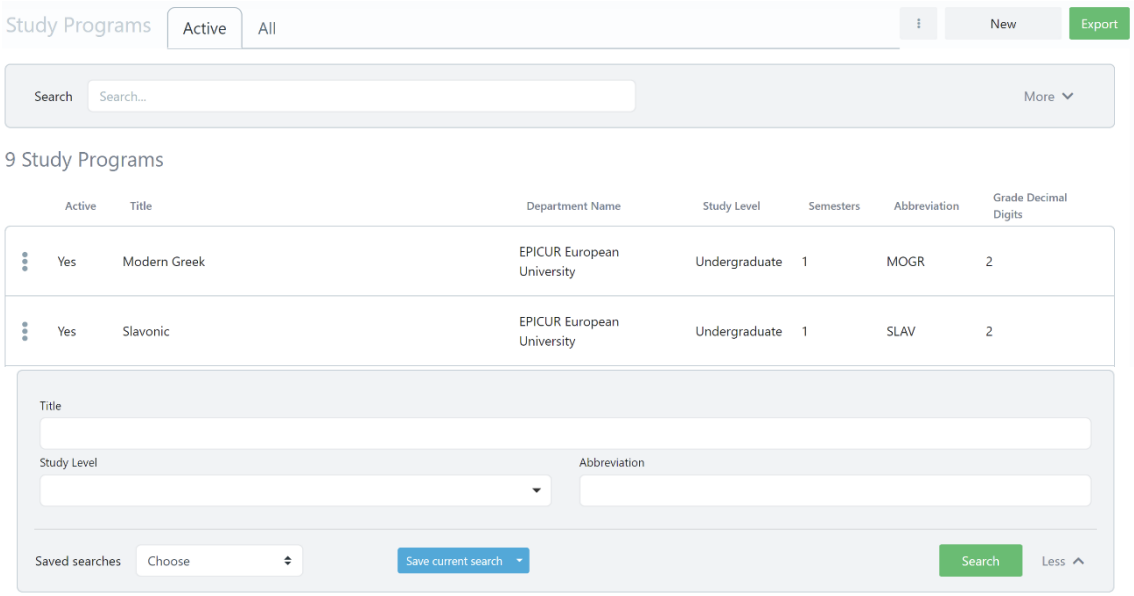

Figure 26: Search Mobilities functionality: a) List of Mobilities, b) Full search criteria

Table 25: Search Mobilities functionality

Functionality Name	Search Mobilities
Actors	Administrators, Registrar Users
Input Data	Optional: Title, Study Level, Abbreviation
Description	The user can search a group of mobilities or a specific mobility by following the steps: 1. selects the **Study Programs** option from the VURS's sidebar menu 2. selects between active mobilities (default option) and all mobilities from the tabs section 3. finds the group of mobilities or a specific mobility on the list of study programs by searching/filtering mobilities (by Title, Study Level, Abbreviation) and by sorting them (by Active, Title Department Name, Study Level, Semesters, Abbreviation, Grade Decimal Digits)
Output Data	The list of the mobilities that satisfy the defined requirements appears in the **Study Programs** page.

2.3.23 Preview Mobility

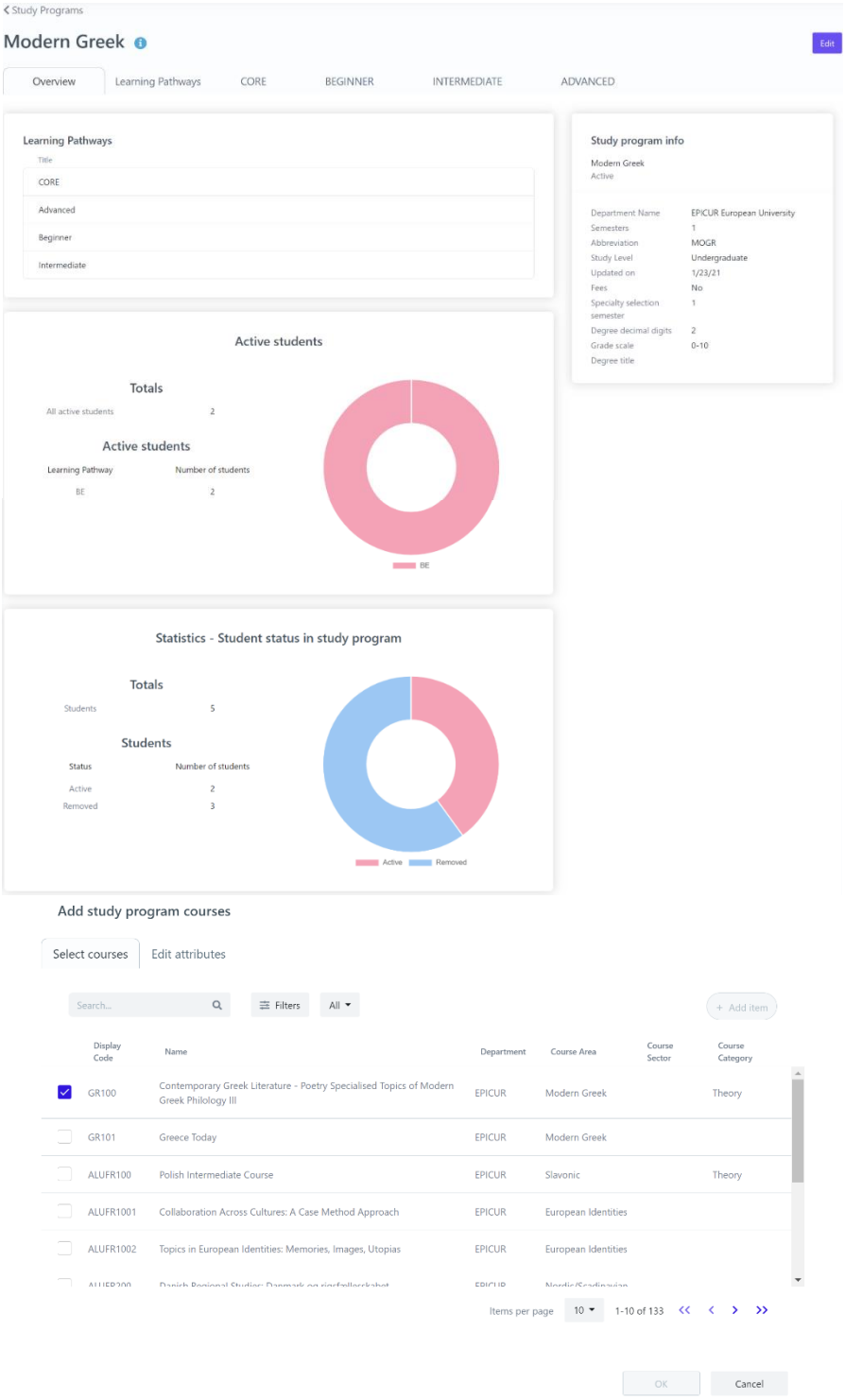

Figure 27: Preview Mobility functionality: a) Overview tab, b) add course form

Table 26: Preview Mobility functionality

Functionality Name	Preview Mobility
Actors	Administrators, Registrar Users
Input Data	Optional: Title, Study Level, Abbreviation • **Add/Edit learning pathway action:** – Required: Name, Abbreviation – Optional: Write a short description for this learning pathway

	• **Add/Edit course action:**
	  • Required: Type, Units, Coefficient, ECTS
	  • Optional: Semester

Description	The user can view a mobility's information by following the steps: 1. searches for a specific mobility on **Study Programs** page 2. clicks on the 3 dots next to the mobility 3. selects **Preview** option **Add learning pathway action**: 4. selects **Learning Pathways** tab 5. clicks **+ New** button 6. completes new learning pathway form and clicks **Submit** button **Remove learning pathway action**: 4. selects **Learning Pathways** tab 5. selects learning pathway(s) by checking box(es) 6. clicks **– Remove item** button 7. clicks **OK** button on the confirmation popup window **Edit learning pathway action**: 4. selects **Learning Pathways** tab 5. clicks edit icon next to the learning pathway 6. changes learning pathway's information by editing learning pathway form and clicks **Submit** button **Add course action**: 4. selects a specific learning pathway tab 5. clicks arrow button next to Edit 6. selects **Add course** option 7. selects courses 8. selects **Edit attributes** tab 9. completes attributes form and clicks **OK** button **Remove course action**: 4. selects a specific learning pathway tab 5. selects course(s) by checking box(es) 6. clicks arrow button next to Edit 7. selects **Remove course** option 8. clicks **YES** button on the confirmation popup window **Edit course action**: 4. selects a specific learning pathway tab 5. clicks edit icon next to the learning pathway or selects course by checking box and clicks **Edit** button 6. changes course's attributes by editing study program course form and clicks **Submit** button
Output Data	The page with all the mobility's information is loaded where there are some tabs: Overview, Learning pathways and a tab for each learning pathway. Upon adding, removing or editing learning pathways/courses to a mobility, the list of learning pathways/courses and the tabs are updated.

2.3.24 Create Mobility

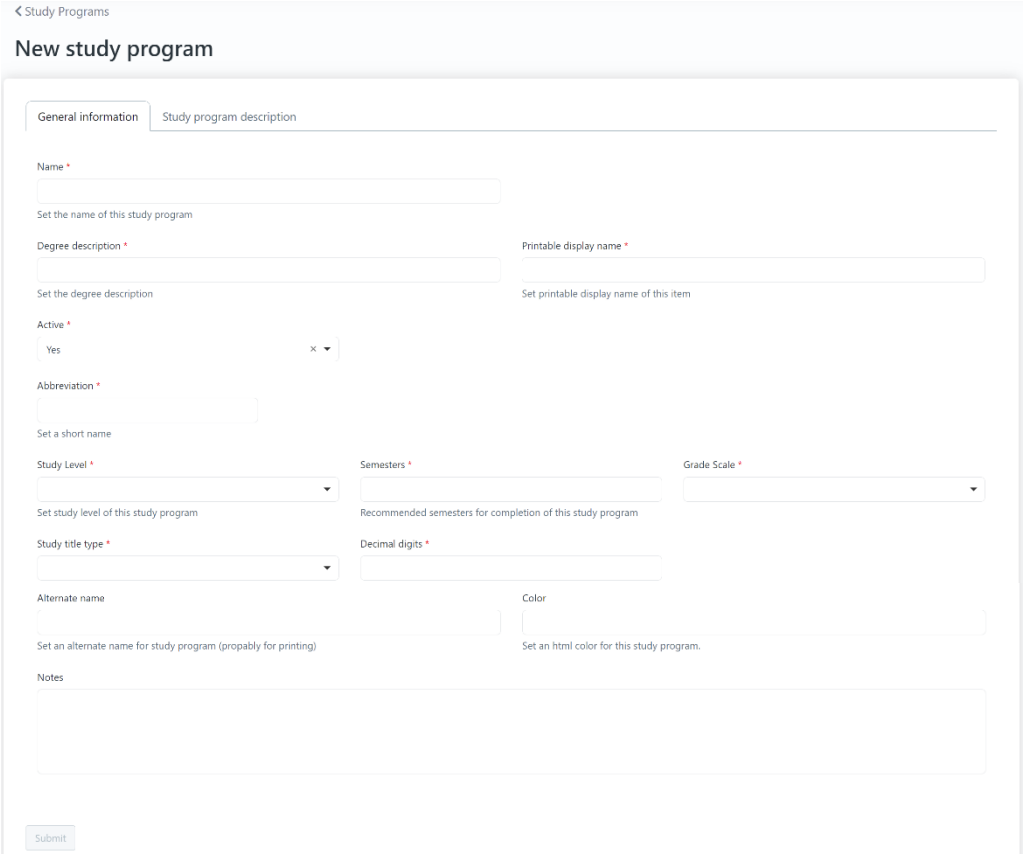

Figure 28: Create Mobility functionality

Table 27: Create Mobility functionality

Functionality Name	Create Mobility
Actors	Administrators, Registrar Users

Input Data	• **General Information:**
	  • Required: Name, Degree description, Printable display name, Active, Abbreviation, Study Level, Semesters, Grade Scale, Study title type, Decimal digits
	  • Optional: Alternate name, Color, Notes
	• **Study program description:**
	  • Optional: Official duration, Access requirements, Mode of study, Grading system, Degree requirements, Access to further study, Language of instruction, Additional information, Further information

Description	The user can create a mobility by following the steps: 1. selects the **Study Programs** option from the VURS's sidebar menu 2. clicks the button **New** 3. completes the new mobility form and submits it To be enabled the submit button, at least the required fields of the form needs to be completed.
Output Data	A completion popup message is shown after the user's submission and the mobility would be in the study programs list.

2.3.25 Edit Mobility

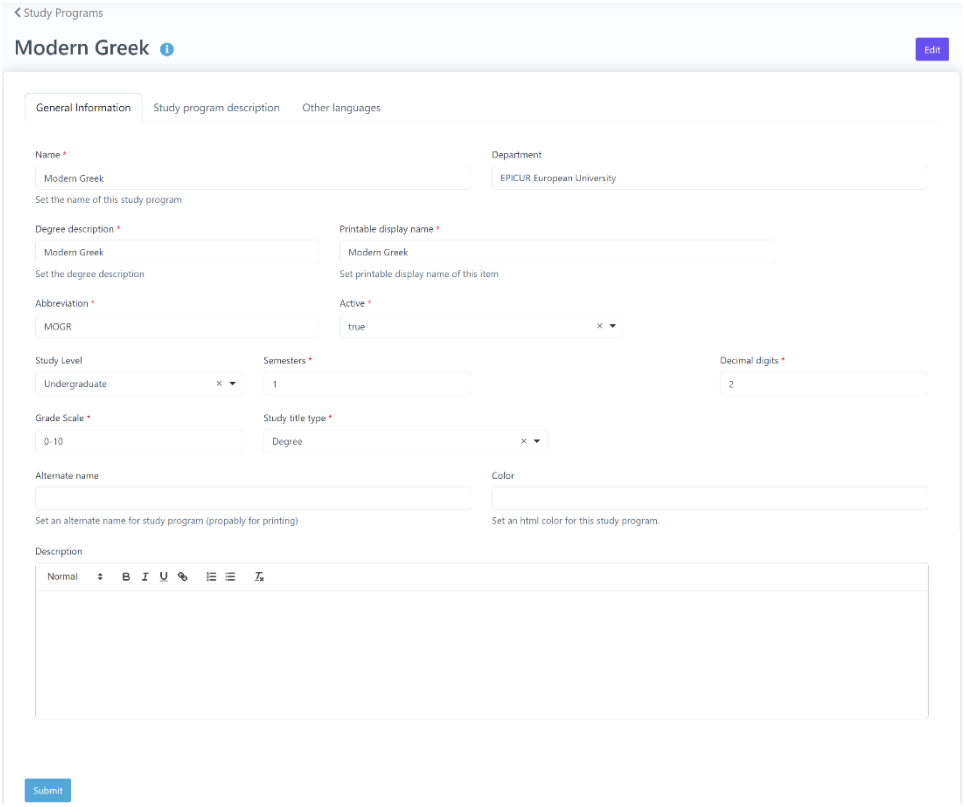

Figure 29: Edit Mobility functionality

Table 28: Edit Mobility functionality

Functionality Name	Edit Mobility
Actors	Administrators, Registrar Users

Input Data	• **General Information:**
	  • Required: Name, Degree description, Printable display name, Abbreviation, Active, Semesters, Decimal digits, Study title type
	  • Optional: Study Level, Alternate name, Color, Description
	• **Study program description:**
	  • Optional: Official duration, Access requirements, Mode of study, Grading system, Degree requirements, Access to further study, Language of instruction, Additional information, Further information

Description	The user can change a mobility's information by following the steps: 1. searches for a specific mobility on **Study Programs** page 2. clicks on the 3 dots next to the mobility 3. selects **Edit** option. There is also an **Edit** button in the mobility's preview page. 4. changes mobility's information by editing his/her form and submits it
Output Data	A completion popup message is shown after the user's submission and the mobility's preview page appears.

2.3.26 Search Applications

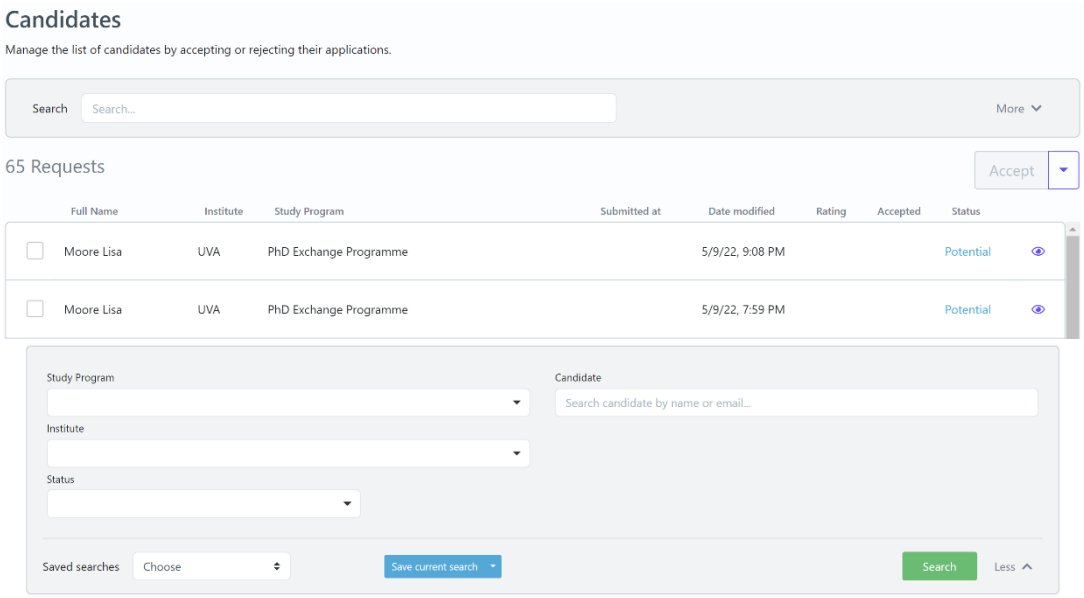

Figure 30: Search Applications functionality: a) List of Applications, b) Full search criteria

Table 29: Search Applications functionality

Functionality Name	Search Applications
Actors	Administrators, Registrar Users
Input Data	Optional: Study Program, Candidate (name or email), Institute, Status **Send message action**: • Required: Subject, Write a short message
Description	The user can search a group of applications or a specific application by following the steps: 1. selects the **Candidates** option from the VURS's sidebar menu 2. finds the group of applications or a specific application on the list of candidates by searching/filtering applications (by Study Program, Candidate (name or email), Institute, Status) and by sorting them (by Full Name, Institute, Study Program, Submitted at, Date modified, Rating, Accepted, Status) **To communicate with student(s)**: 3. selects application(s) by checking box(es) 4. clicks arrow button next to Accept 5. selects **Compose new message** or **Send a direct message to candidate** 6. completes the message form (Subject, Write a short message) and sends it by clicking **Start** button The user can also perform the actions for an application (by clicking arrow button next to Accept): Accept, Reject, Export.
Output Data	The list of the mobilities that satisfy the defined requirements appears in the **Candidates** page. For "Send message" action, a loading bar appears and after the completion the popup form closes.

2.3.27 Preview Application

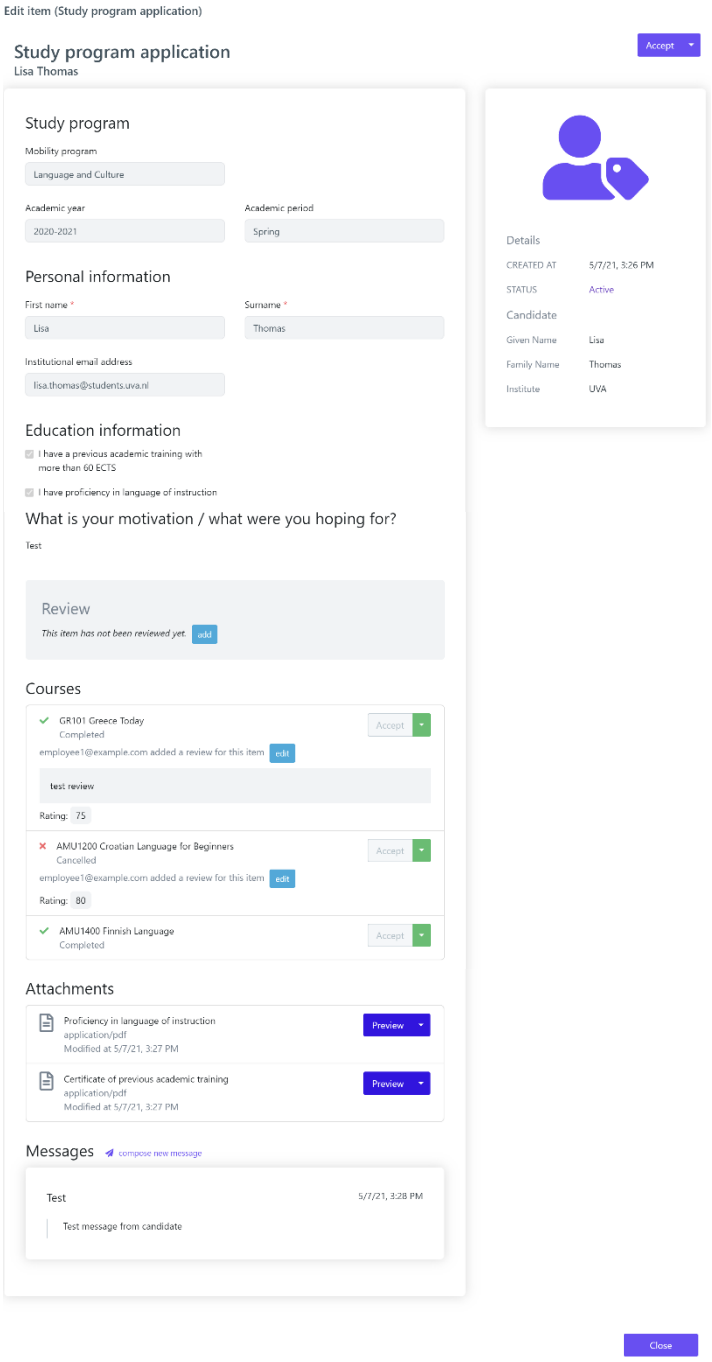

Figure 31: Preview Application functionality

Table 30: Preview Application functionality

Functionality Name	Preview Application
Actors	Administrators, Registrar Users
Input Data	Optional: Study Program, Candidate (name or email), Institute, Status
Description	The user can view an application by following the steps: 1. searches for a specific application on **Candidates** page 2. clicks on the eye button next to the application
Output Data	The page with all the application's information is loaded, including: Details, Study program, Personal information, Education information, What is your motivation / what were you hoping for?, Courses, Attachments, Messages.

2.3.28 Application Actions

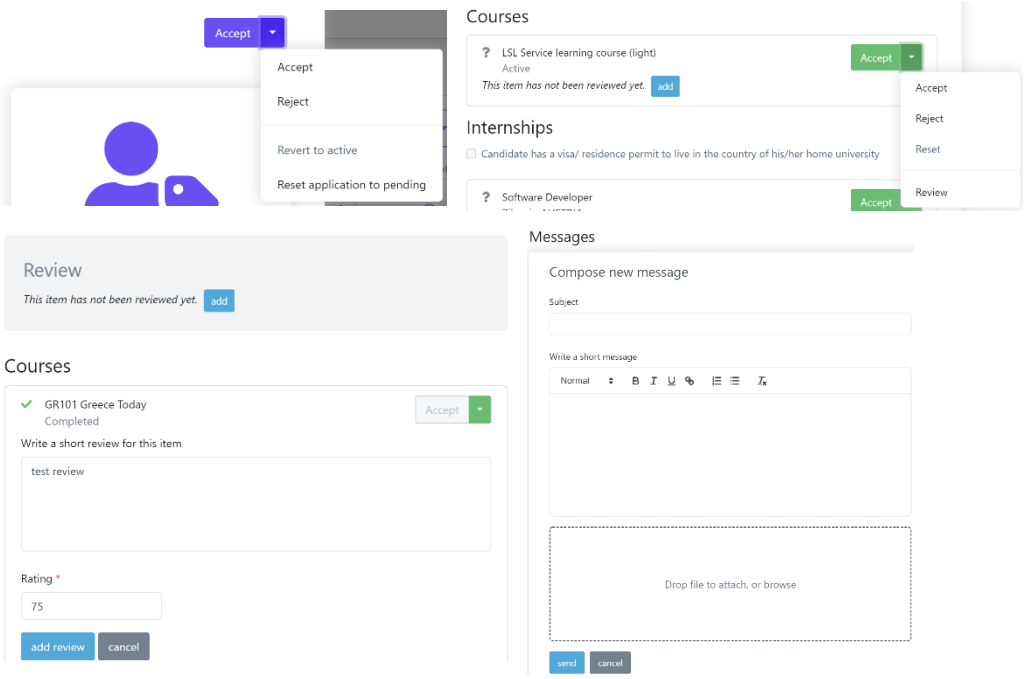

Figure 32: Application Actions functionality

Table 31: Application Actions functionality

Functionality Name	Application Actions
Actors	Administrators, Registrar Users
Input Data	Optional: Review (Write a short review for this item, Rating (Required)), Message (Subject, Write a short message, file)
Description	The user can review an application, update its status (accept, reject, revert to active, reset to pending) and communicate with the candidate by following the steps: **To review an application**: 1. visits the preview page of a specific application 2. clicks **add** button next to the message "This item has not been reviewed yet." on Review section or on each course. For a course, there is the option to review it by selecting **Review** option on the arrow button next to Accept button. There is also, the option to edit an existing review 3. completes the review form (Write a short review for this item, Rating) and submits it **To update status**: 1. visits the preview page of a specific application 2. for a course, next to it, selects Accept, Reject or Reset option. For the whole application, next to "Study program application", selects Accept, Reject, Revert to active or Reset application to pending **To communicate with the candidate**: 1. visits the preview page of a specific application 2. clicks compose new message on Message section 3. completes the message form (Subject, Write a short message, attach file) and sends it
Output Data	For "Review" and "Send message" actions, the result is shown in the

	application. For “Change status” action, a confirmation box appears first to finalize this action.

2.3.29 Search Student Requests

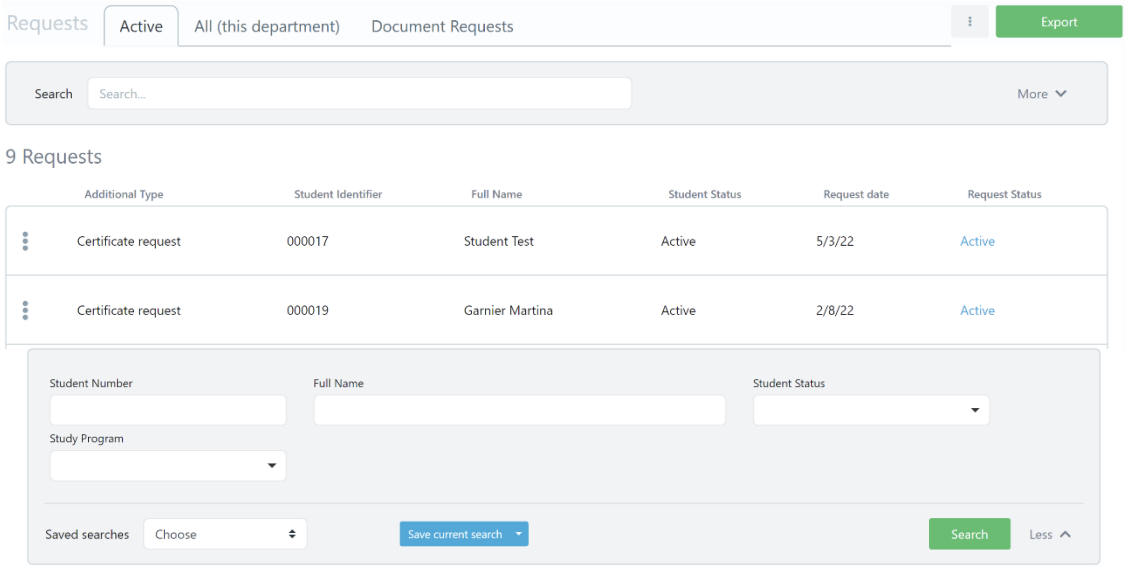

Figure 33: Search Student Requests functionality: a) List of Student Requests, b) Full search criteria

Table 32: Search Student Requests functionality

Functionality Name	Search Student Requests
Actors	Administrators, Registrar Users
Input Data	Optional: Student Number, Full Name, Student Status, Study Program
Description	The user can search a group of student requests or a specific student request by following the steps: 1. selects the **Requests** option from the VURS’s sidebar menu 2. selects between active requests (default option), all (this department) requests and document requests from the tabs section 3. finds the group of student requests or a specific student request on the list of requests by searching/filtering student requests (by Student Number, Full Name, Student Status, Study Program) and by sorting them (by Additional Type, Student Identifier, Full Name, Student Status, Request date, Request Status)
Output Data	The list of the student requests that satisfy the defined requirements appears in the **Requests** page.

2.3.30 Preview Student Request

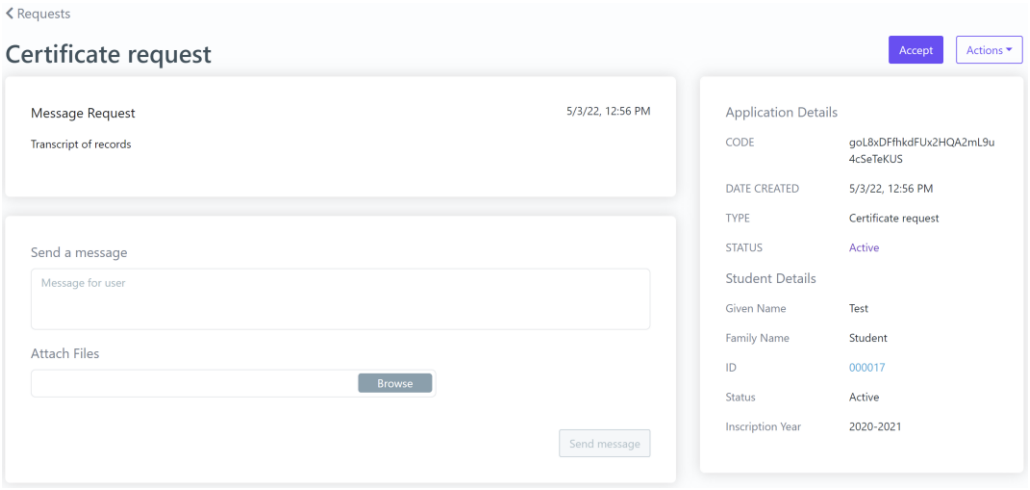

Figure 34: Preview Student Request functionality

Table 33: Preview Student Request functionality

Functionality Name	Preview Student Requests
Actors	Administrators, Registrar Users
Input Data	Optional: Student Number, Full Name, Student Status, Study Program **Send message action**: • Required: Message for user • Optional: Attach files
Description	The user can view an application by following the steps: 1. searches for a specific student request on **Requests** page 2. clicks on the 3 dots next to the request 3. selects **Preview** option **To communicate with student**: 4. completes the message form on Send a message section 5. clicks **Send message** button The user can also perform the actions (by clicking **Actions** button): Accept, Reject, Release.
Output Data	The page with all the student request's information is loaded, including: all the available actions. For "Send message" action, the result is shown in the Response section. The other actions change requests' status.

2.3.31 Search Student Registrations

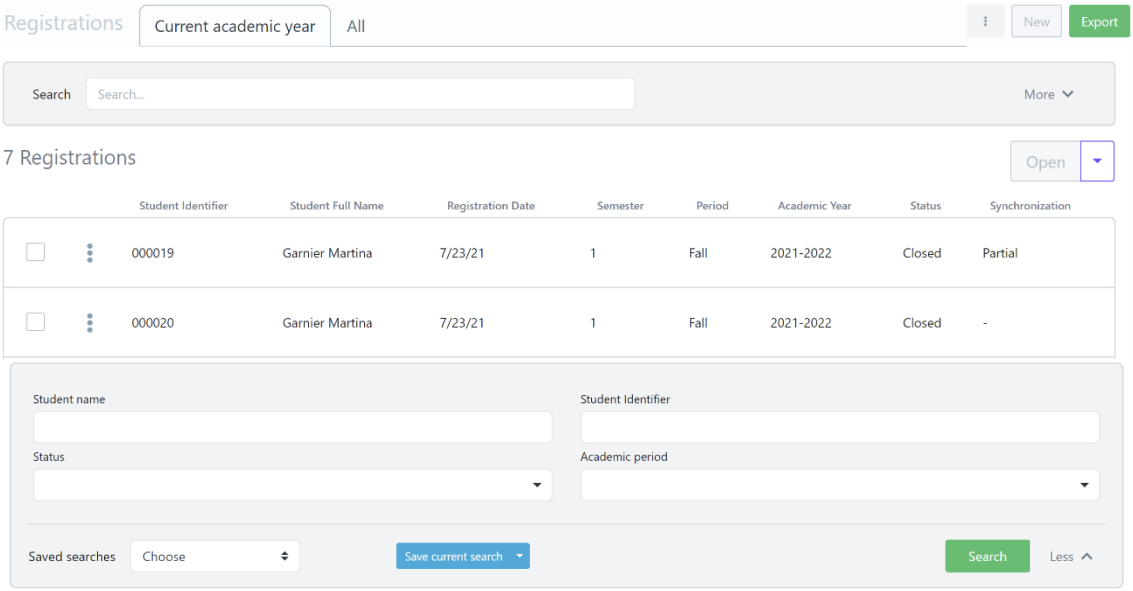

Figure 35: Search Student Registrations functionality: a) List of Student Registrations, b) Full search criteria

Table 34: Search Student Registrations functionality

Functionality Name	Search Student Registrations
Actors	Administrators, Registrar Users
Input Data	Optional: Student Name, Student Identifier, Status, Academic period
Description	The user can search a group of student registrations or a specific student registration by following the steps: 1. selects the **Registrations** option from the VURS's sidebar menu 2. selects between current academic year registrations (default option) and all registrations from the tabs section 3. finds the group of student registrations or a specific student registration on the list of registrations by searching/filtering student registrations (by Student Name, Student Identifier, Status, Academic period) and by sorting them (by Student Identifier, Student Full Name, Registration Date, Semester, Period, Academic Year, Status, Synchronization) The user can perform the actions for a student registration (by clicking arrow button next to Open): Open, Close, Synchronize data to VCLP.
Output Data	The list of the student registrations that satisfy the defined requirements appears in the **Registrations** page.

2.3.32 Search Internships

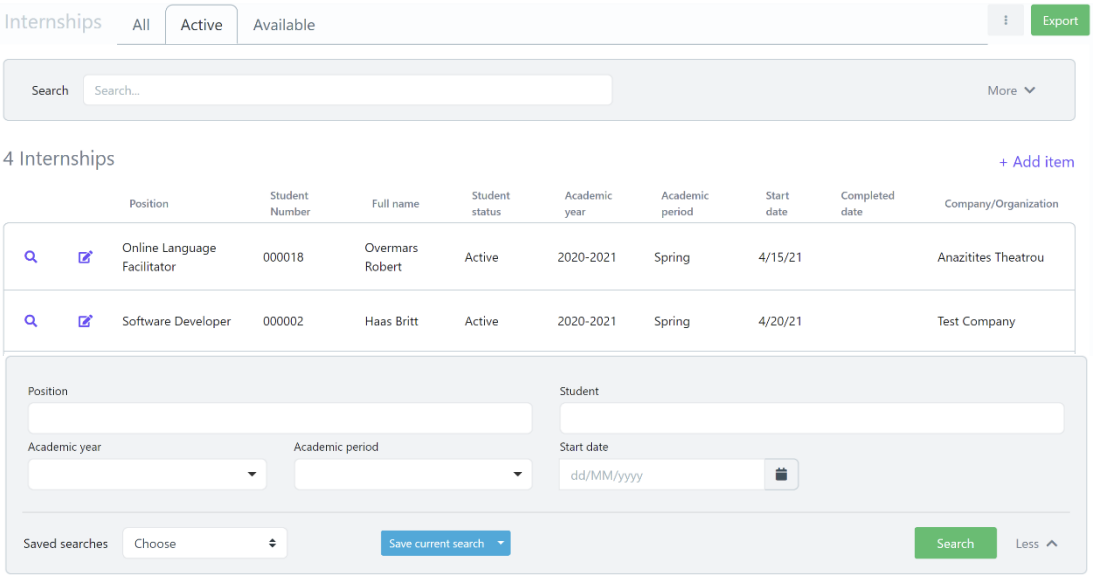

Figure 36: Search Internships functionality: a) List of Internships, b) Full search criteria

Table 35: Search Internships functionality

Functionality Name	Search Internships
Actors	Administrators, Registrar Users
Input Data	Optional: Position, Student, Academic year, Academic period, Start date
Description	The user can search a group of internships or a specific internship by following the steps: 1. selects the **More->Internships** option from the VURS's sidebar menu 2. selects between all internships, active internships (default option) and available internships from the tabs section 3. finds the group of internships or a specific internship on the list of internships by searching/filtering them (by Position, Student, Academic year, Academic period, Start date) and by sorting them (by Position, Student Number, Full name, Student Status, Academic year, Academic period, Start date, Completed dates)
Output Data	The list of the internships that satisfy the defined requirements appears in the **Internships** page.

2.3.33 Preview Internships

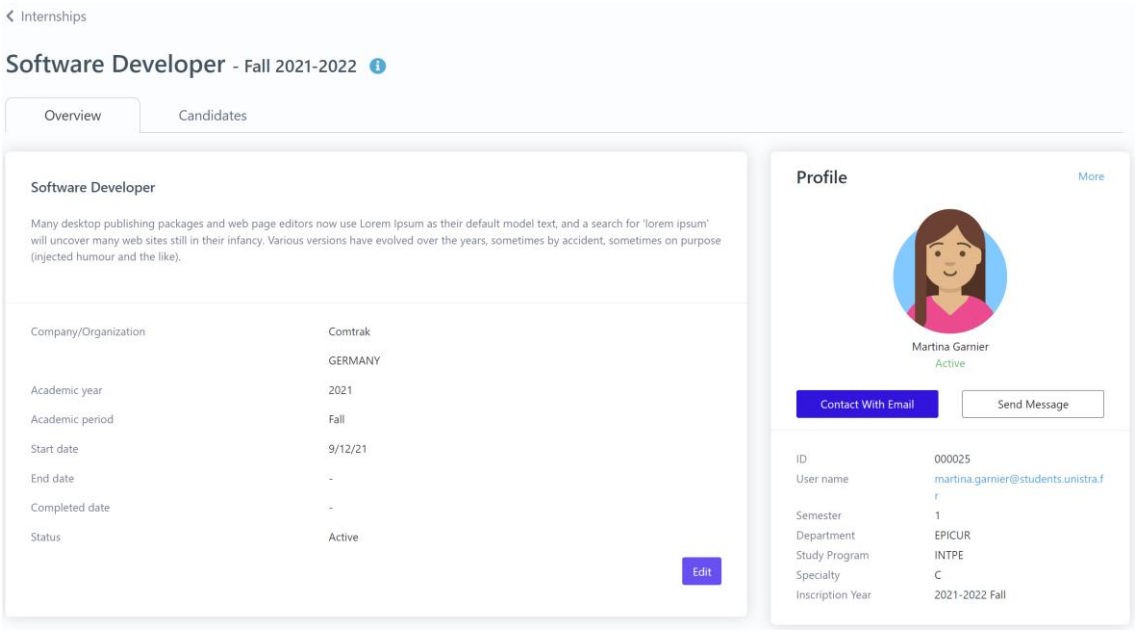

Figure 37: Preview Internships functionality

Table 36: Preview Internships functionality

Functionality Name	Preview Internships
Actors	Administrators, Registrar Users
Input Data	Optional: Position, Student, Academic year, Academic period, Start date
Description	The user can view an internship's information by following the steps: 1. searches for a specific internship on **Internships** page 2. clicks on lens icon next to the internship
Output Data	The page with all the internship's information is loaded where there are some tabs: Overview, Candidates.

2.3.34 Create Internship

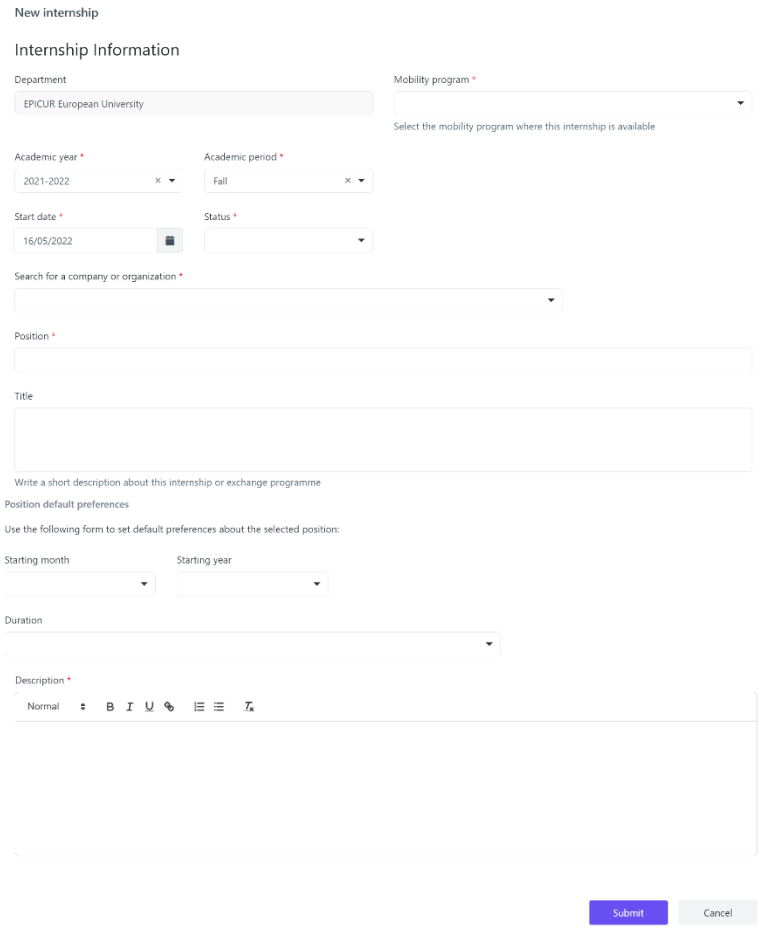

Figure 38: Create Internship functionality

Table 37: Create Internship functionality

Functionality Name	Create Internship
Actors	Administrators, Registrar Users
Input Data	• **Internship Information**: – Required: Mobility program, Academic year, Academic period, Start date, Status, Search for a company or organization, Position, Description – Optional: Title, Starting month, Starting year, Duration
Description	The user can create an internship by following the steps: 1. selects the **More->Internship** option from the VURS's sidebar menu 2. clicks the button **+ Add item** 3. completes the new internship form and submits it To be enabled the submit button, at least the required fields of the form needs to be completed.
Output Data	A completion popup message is shown after the user's submission and the internship would be in the study programs list.

2.3.35 Edit Internship

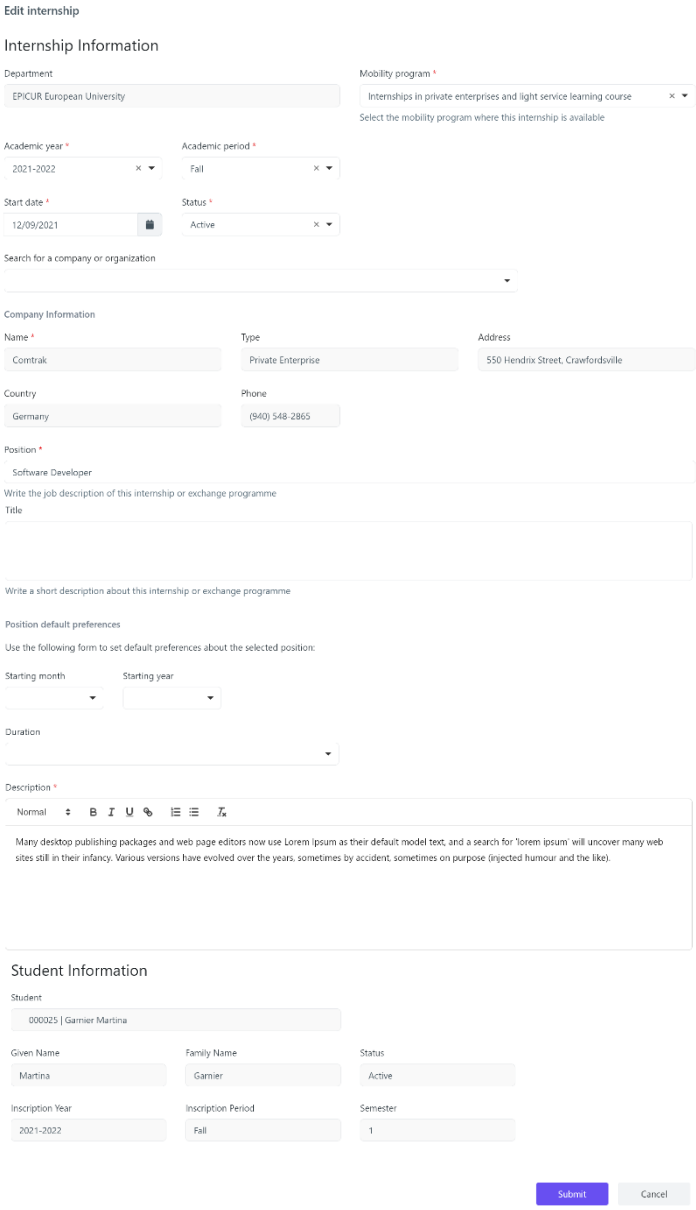

Figure 39: Edit Internship functionality

Table 38: Edit Internship functionality

Functionality Name	Edit Internship
Actors	Administrators, Registrar Users
Input Data	• **Internship Information**: – Required: Mobility program, Academic year, Academic period, Start date, Status, Position, Description – Optional: Search for a company or organization, Title, Starting month, Starting year, Duration
Description	The user can change an internship's information by following the steps: 1. searches for a specific internship on **Internships** page 2. clicks on the edit icon next to the position of the internship 3. changes internship's information by editing the form and submits it
Output Data	After the user's submission the internships information changes.

2.3.36 Search Companies/Organizations

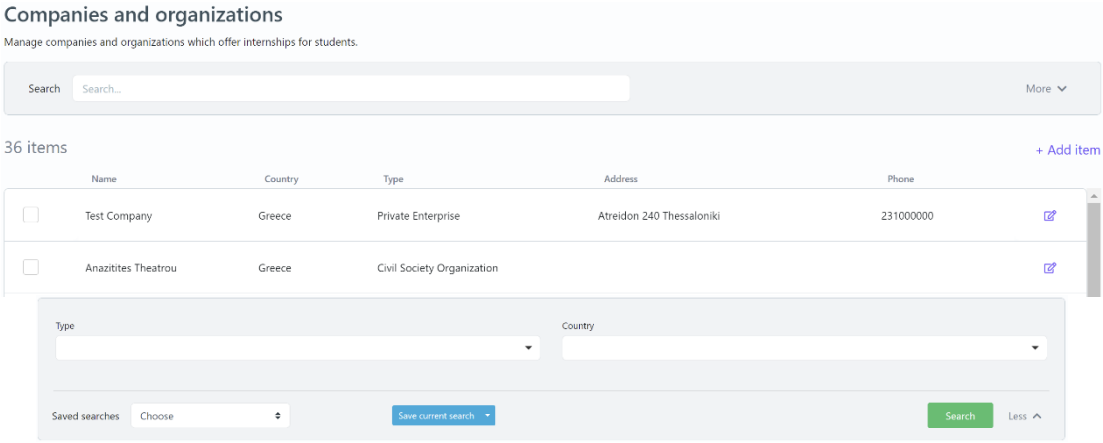

Figure 40: Search Companies/Organizations functionality: a) List of Companies/Organizations, b) Full search criteria

Table 39: Search Companies/Organizations functionality

Functionality Name	Search Companies/Organizations
Actors	Administrators, Registrar Users
Input Data	Optional: Type, Country
Description	The user can search a group of companies/organizations or a specific company/organization by following the steps: 1. selects the **More->Settings** option from the VURS's sidebar menu 2. searches for **Companies and organizations** and clicks **Expand** button 3. finds the group of companies/organizations or a specific company/organization on the list of companies and organizations by searching/filtering them (by Type, Country) and by sorting them (by Name, Country, Type, Address, Phone) **Remove item action**: 4. selects company(ies)/organization(s) by checking box(es) 5. clicks – **Remove item** button 6. clicks **OK** button on the confirmation popup window
Output Data	The list of the companies/organizations that satisfy the defined requirements appears in the **Companies and organizations** page. Upon removing companies/organizations, the list of companies/organizations is updated.

2.3.37 Add Company/Organization

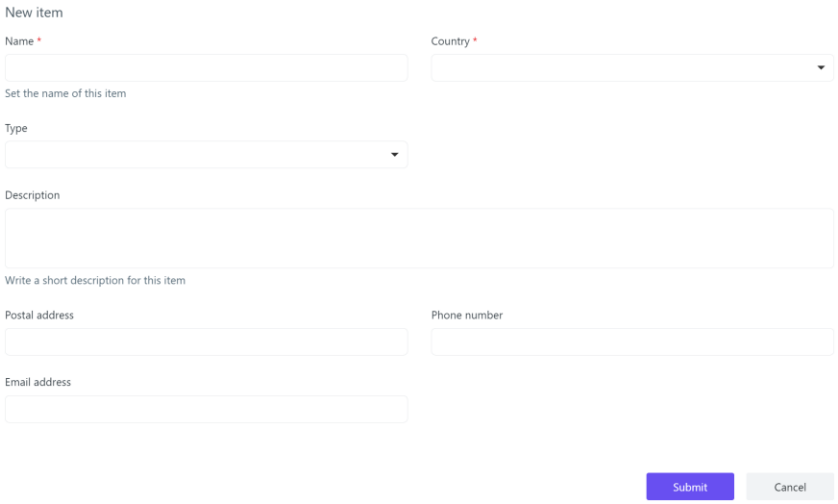

Figure 41: Add Company/Organization functionality

Table 40: Add Company/Organization functionality

Functionality Name	Add Company/Organization
Actors	Administrators, Registrar Users
Input Data	– Required: Name, Country – Optional: Type, Description, Postal address, Phone number, Email address
Description	The user can add a company/organization by following the steps: 1. selects the **More->Settings** option from the VURS's sidebar menu 2. searches for **Companies and organizations** and clicks **Expand** button 3. clicks the button **+ Add item** 4. completes the new item form and submits it
Output Data	A completion popup message is shown after the user's submission and the company/organization would be in the companies and organizations list.

2.3.38 Edit Company/Organization

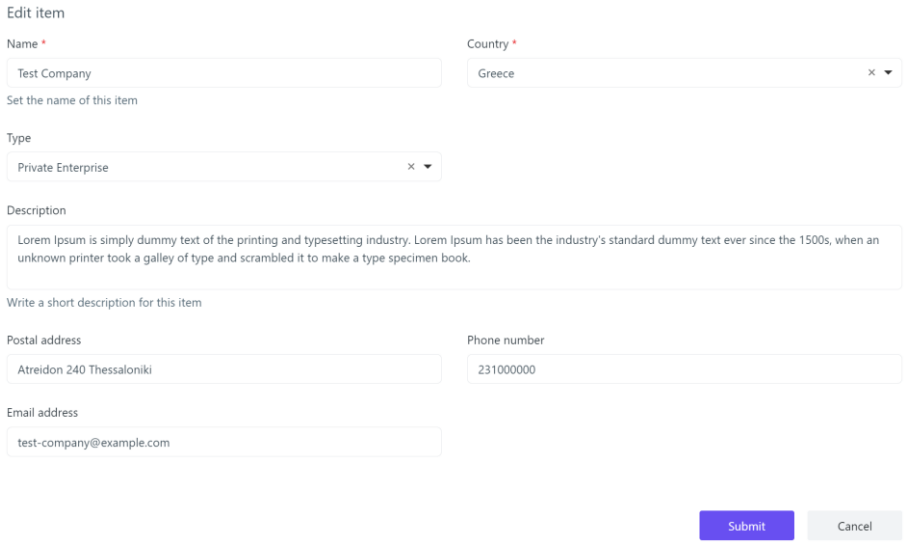

Figure 42: Edit Company/Organization functionality

Table 41: Edit Company/Organization functionality

Functionality Name	Edit Company/Organization
Actors	Administrators, Registrar Users
Input Data	– Required: Name, Country – Optional: Type, Description, Postal address, Phone number, Email address
Description	The user could change the information of a company/organization by following the steps: 1. searches for a specific company/organization on **Companies and organizations** page 2. clicks on the edit icon next to the company/organization 3. changes company's/organization's information by editing the form and submits it
Output Data	A completion popup message is shown after the user's submission and the **Companies and organizations** page appears.

2.3.39 Search Company Types

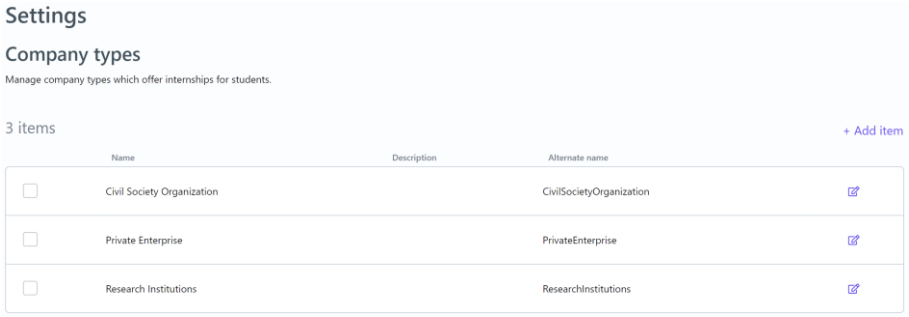

Figure 43: Search Company Types functionality

Table 42: Search Company Types functionality

Functionality Name	Search Company Types
Actors	Administrators, Registrar Users
Input Data	-
Description	The user can search a group of company types or a specific company type by following the steps: 1. selects the **More->Settings** option from the VURS's sidebar menu 2. searches for **Company types** and clicks **Expand** button 3. finds the group of company types or a specific company type on the list of company types by sorting them (by Name, Description, Alternate name) **Remove item action**: 4. selects company type(s) by checking box(es) 5. clicks – **Remove item** button 6. clicks **OK** button on the confirmation popup window
Output Data	The sorted list of the company types appears in the **Company types** page. Upon removing company types, the list of company types is updated.

2.3.40 Add Company Type

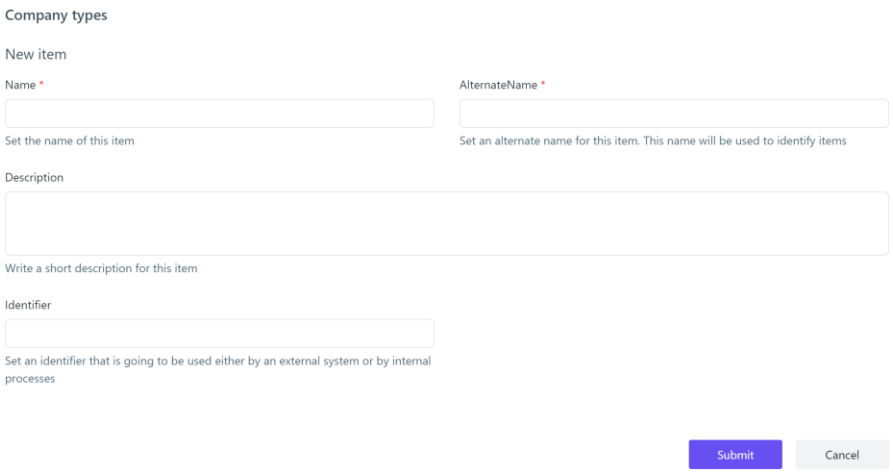

Figure 44: Add Company Type functionality

Table 43: Add Company Type functionality

Functionality Name	Add Company Type
Actors	Administrators, Registrar Users
Input Data	– Required: Name, Alternate Name – Optional: Description, Identifier
Description	The user can add a company type by following the steps: 1. selects the **More->Settings** option from the VURS's sidebar menu 2. searches for **Company types** and clicks **Expand** button 3. clicks the button **+ Add item** 4. completes the new item form and submits it
Output Data	A completion popup message is shown after the user's submission and the company type would be in the company types list.

2.3.41 Edit Company Type

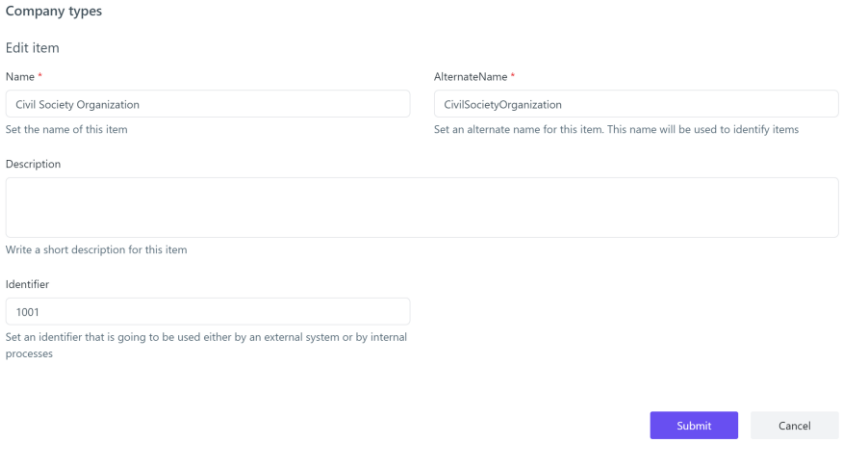

Figure 45: Edit Company Type functionality

Table 44: Edit Company Type functionality

Functionality Name	Edit Company Type
Actors	Administrators, Registrar Users
Input Data	– Required: Name, Alternate Name – Optional: Description, Identifier

Description	The user can change the information of a company type by following the steps: 1. searches for a specific company type on **Company types** page 2. clicks on the edit icon next to the company type 3. changes company type's information by editing the form and submits it
Output Data	A completion popup message is shown after the user's submission and the **Company types** page appears.

2.3.42 Search Archived Documents

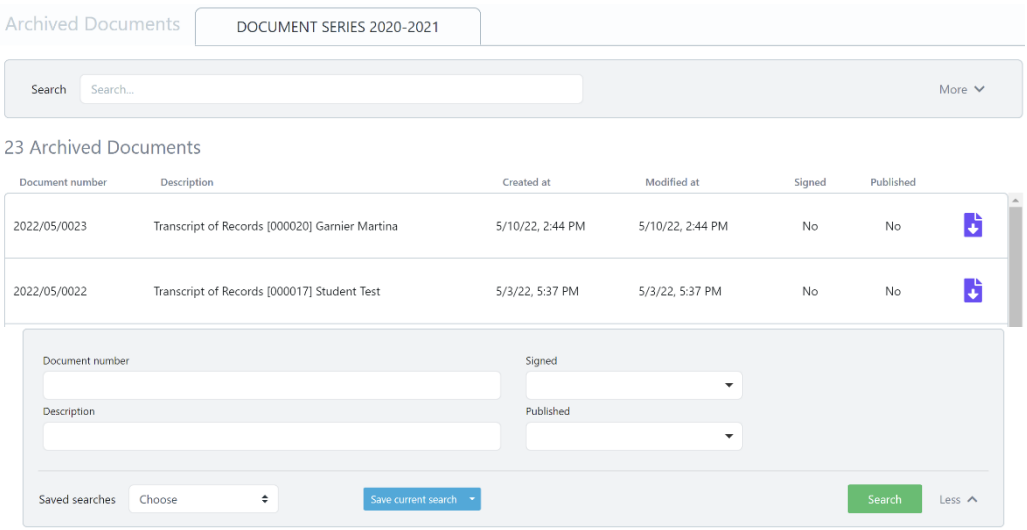

Figure 46: Search Archived Documents functionality: a) List of Archived Documents, b) Full search criteria

Table 45: Search Archived Documents functionality

Functionality Name	Search Archived Documents
Actors	Administrators, Registrar Users
Input Data	Optional: Document number, Signed, Description, Published
Description	The user can search a group of archived documents or a specific archived document by following the steps: 1. selects the **More->Archived Documents** option from the VURS's sidebar menu 2. finds the group of archived documents or a specific archived document on the list of archived documents by searching/filtering them (by Document number, Signed, Description, Published) and by sorting them (by Document number, Description, Created at, Modified at, Signed, Published)
Output Data	The list of the archived documents that satisfy the defined requirements appears in the **Archived Documents** page.

2.3.43 Search Lists/Enumerations

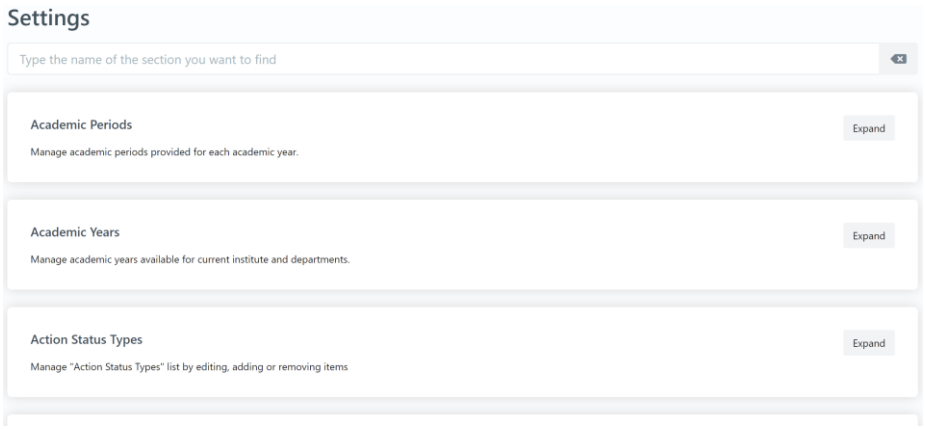

Figure 47: Search Lists/Enumerations functionality

Table 46: Search Lists/Enumerations functionality

Functionality Name	Search Lists/Enumerations
Actors	Administrators, Registrar Users
Input Data	Depends on the list/enumeration
Description	The user can search lists and enumerations like academic years, academic period, course categories, course types etc. by following the steps: 1. selects the **More->Settings** option from the VURS's sidebar menu 2. searches for a list/enumeration and clicks **Expand** button 3. finds items on the list where the user can sort them, add a new item and edit an existing one
Output Data	For sorting items action, the sorted list appears in the page. For adding and editing an item, a completion popup message is shown after the user's submission.

2.4 Students

2.4.1 Preview Main Information

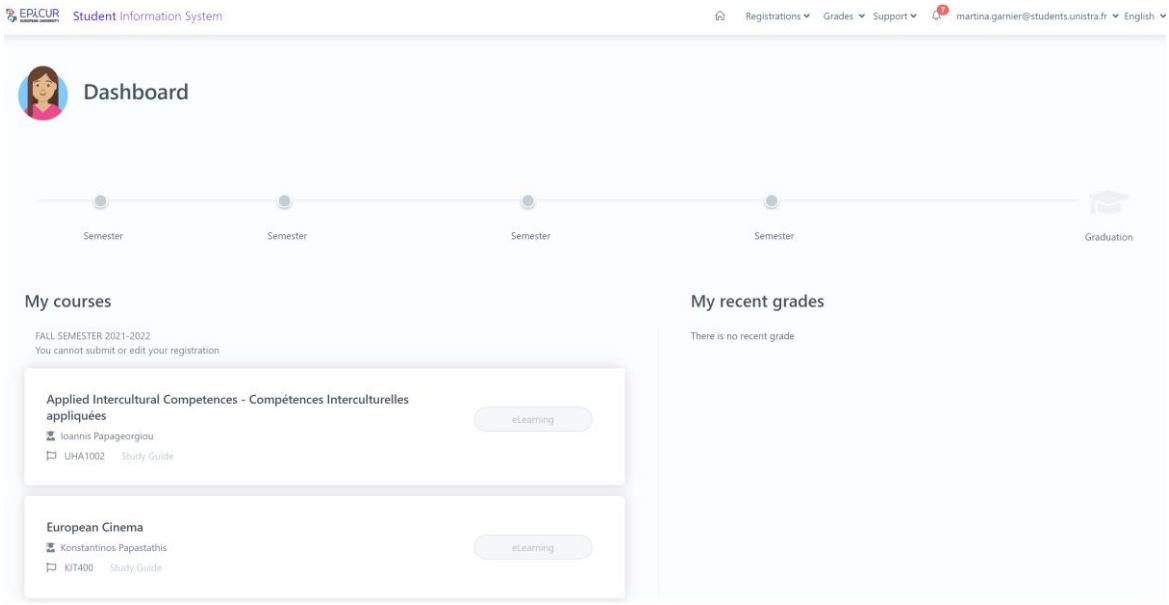

Figure 48: Preview Main Information functionality

Table 47: Preview Main Information functionality

Functionality Name	Preview Main Information
Actors	Students
Input Data	-
Description	The user can view his/her main personal data by selecting the home icon from the VURS's menu bar
Output Data	The page with the main user's information is loaded which are: study profile, registered courses, recent grades.

2.4.2 Check Grades

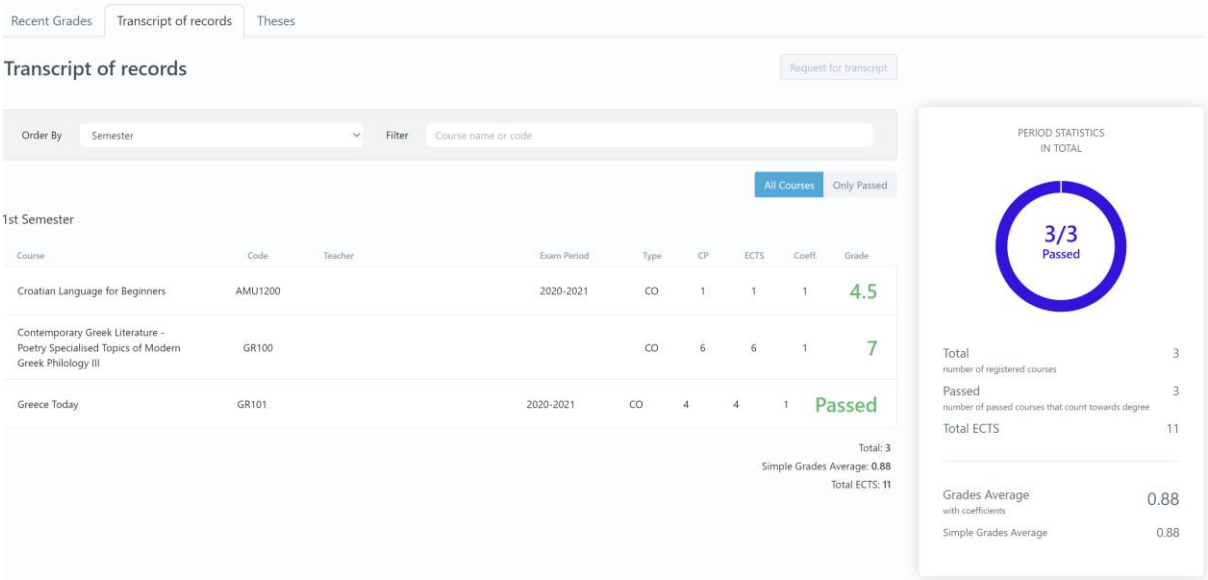

Figure 49: Check Grades functionality: All Grades

Table 48: Check Grades functionality

Functionality Name	Check Grades
Actors	Students
Input Data	Optional: Name, Code
Description	The user can check his/her grades by following the steps: **For Recent Grades**: 1. selects the **More->Recent Grades** option from the VURS's menu bar There is the option to check for each course the statistics of grades regarding the number of students by clicking **Statistics** button on the specific course section. **For All Grades**: 1. selects the **More->All Grades** option from the VURS's menu bar 2. selects between all courses (default option) and only passed courses 3. checks courses grades by searching/filtering them (by name or code) and by sorting them (by Semester, Type) **For Theses' Grades**: 1. selects the **More->Theses** option from the VURS's menu bar

	The user can also switch between categories by selecting one of the following tabs: Recent Grades, Transcripts of records (for all grades), Theses.
Output Data	The page with the grades is loaded with some statistics. If the user selects statistics within a specific course, a popup window with relevant information appears.

2.4.3 View Requests

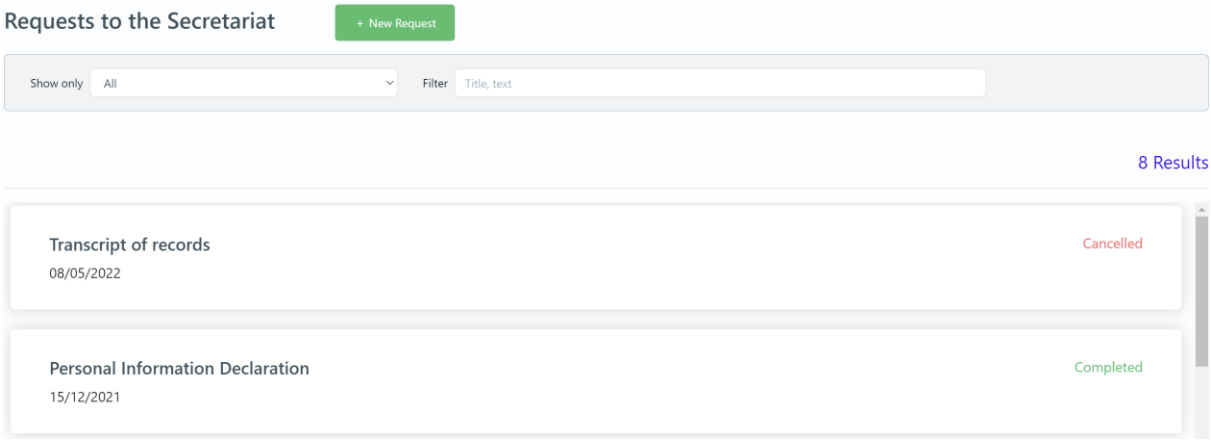

Figure 50: View Requests functionality

Table 49: View Requests functionality

Functionality Name	View Requests
Actors	Students
Input Data	Optional: Title, Text
Description	The user can view his/her requests by following the steps: 1. selects the **Support->Requests** option from the VURS's menu bar 2. selects between all requests (default option), pending requests, approved requests and failed requests 3. finds a group of requests or a specific request on the list of requests to the secretariat by searching/filtering them (by title, text) When there are files attached to a request, the user is able to download them by clicking the **Download documents** button.
Output Data	The list of requests that satisfy the defined requirements appears on the **Requests to the Secretariat** page where the user can see the status of each request and the secretariat's response. By clicking the **Download documents** button in a request, the attached files are downloaded to the user's computer.

Document Unique Code

EPICUR EUROPEAN UNIVERSITY

EPICUR European University

Transcript of Records

Academic Period: 2021-2022 Fall

DocNo: 2021/12/0017

Personal Information

Student last name:	**Ramberg**	First name:	**Tobias**
Date of birth:	**2000-10-20**	Gender:	**Male**
Place of birth:	**Munich**	Matriculation number:	**20180032025551**
Country of birth:	**Germany**		

Name of sending institution:	**Karlsruhe Institute of Technology**
Faculty:	**Physics**
Address:	**Karlsruhe Institute of Technology Hermann-von-Helmholtz-Platz 1 76344**
EPICUR Secretariat/ Coordinator:	**Lukas Schneider**

Receiving Institution	Start mobility date	End mobility date	Form of study	Title of the course unit at the Receiving Institution	Local grade	Number of ECTS credits
AUTH	2021-02-02	2021-04-30	Theory	Contemporary Greek Literature - Poetry Specialised Topics of Modern Greek Philology III	7	6.0
AMU	2021-01-18	2021-05-13	-	Croatian Language for Beginners	4	1.0

(signature)

Document Unique Code

EPICUR EUROPEAN UNIVERSITY

EPICUR European University

Learning Agreement

Academic Period: 2021-2022 Fall

DocNo: 2021/12/0016

Student last name:	**Ramberg**	**First name:**	**Tobias**
Date of birth:	2000-10-06	Gender:	Male
Place of birth:	Munich	Matriculation number:	20180032025555
Country of birth:	Germany		

Name of sending institution:	**Karlsruhe Institute of Technology**
Faculty:	-
Address:	Karlsruhe Institute of Technology Hermann-von-Helmholtz-Platz 1 76344 Eggenstein-

Receiving Institution Acronym	Receiving Institution Name
UNISTRA	University of Strasbourg
UVA	University of Amsterdam
AUTH	Aristotle University of Thessaloniki
BOKU	University of Natural Resources and Life Sciences
KIT	Karlsruhe Institute of Technology
UHA	University of Upper Alsace
FREI	University of Freiburg
AMU	Adam Mickiewicz University in Pozna

Figure 51: Examples of requests: a) Transcript of Records, b) Learning Agreement

2.4.4 Create Request

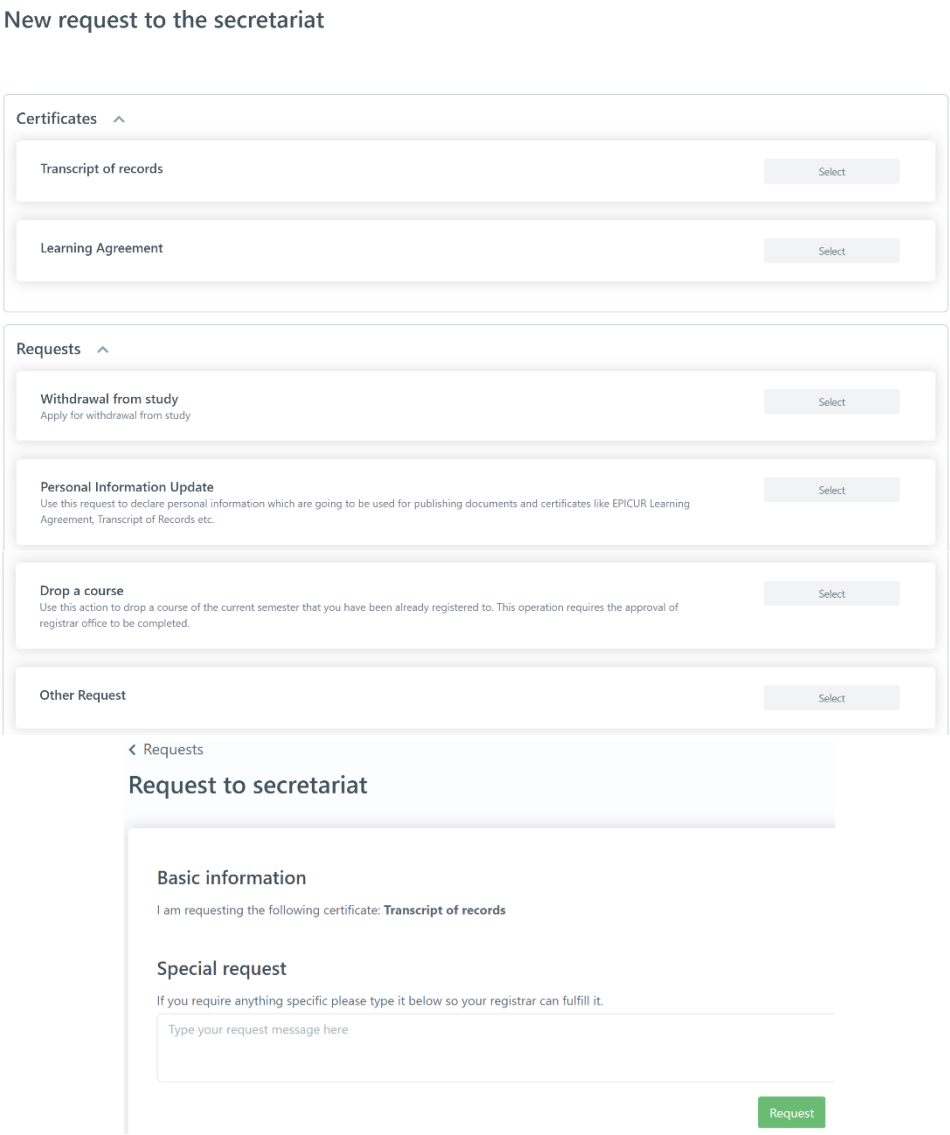

Figure 52: Create Request functionality: a) List of requests, b)Transcript of records request form

Table 50: Create Request functionality

Functionality Name	Create Request
Actors	Students
Input Data	Information about the request to the registrar (Depends on the request)
Description	The user can view his/her requests by following the steps: 1. selects the **Support->Requests** option from the VURS's menu bar 2. clicks **+ New Request** button 3. selects the type of request between Certificates (Transcript of records, Learning Agreement) and Requests (Withdrawal from study, Personal Information Update, Drop a course, Other Request) 4. completes the request form by providing information to the registrar and clicks **Request** button.
Output Data	The **Requests to the Secretariat** is loaded and the request would be added as Active in the list of requests.

2.5 Lecturers

2.5.1 Preview Main Information

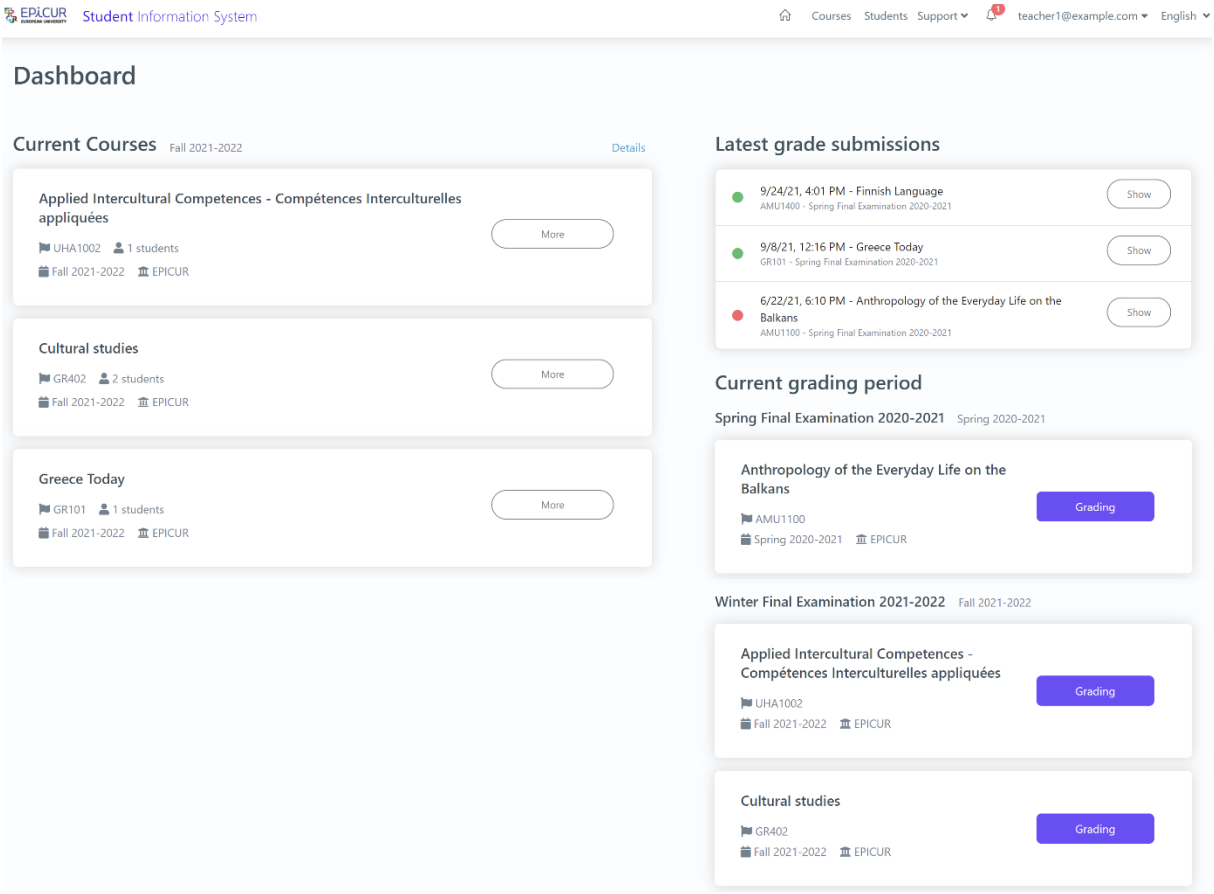

Figure 53: Preview Main Information functionality

Table 51: Preview Main Information functionality

Functionality Name	Preview Main Information
Actors	Lecturers
Input Data	-
Description	The user can view the main information about his/her courses by following the steps: 1. selects the home icon from the VURS's menu bar
Output Data	The page with the main user's information about courses is loaded which are: current courses, latest grade submissions, current grading period.

2.5.2 Search Courses

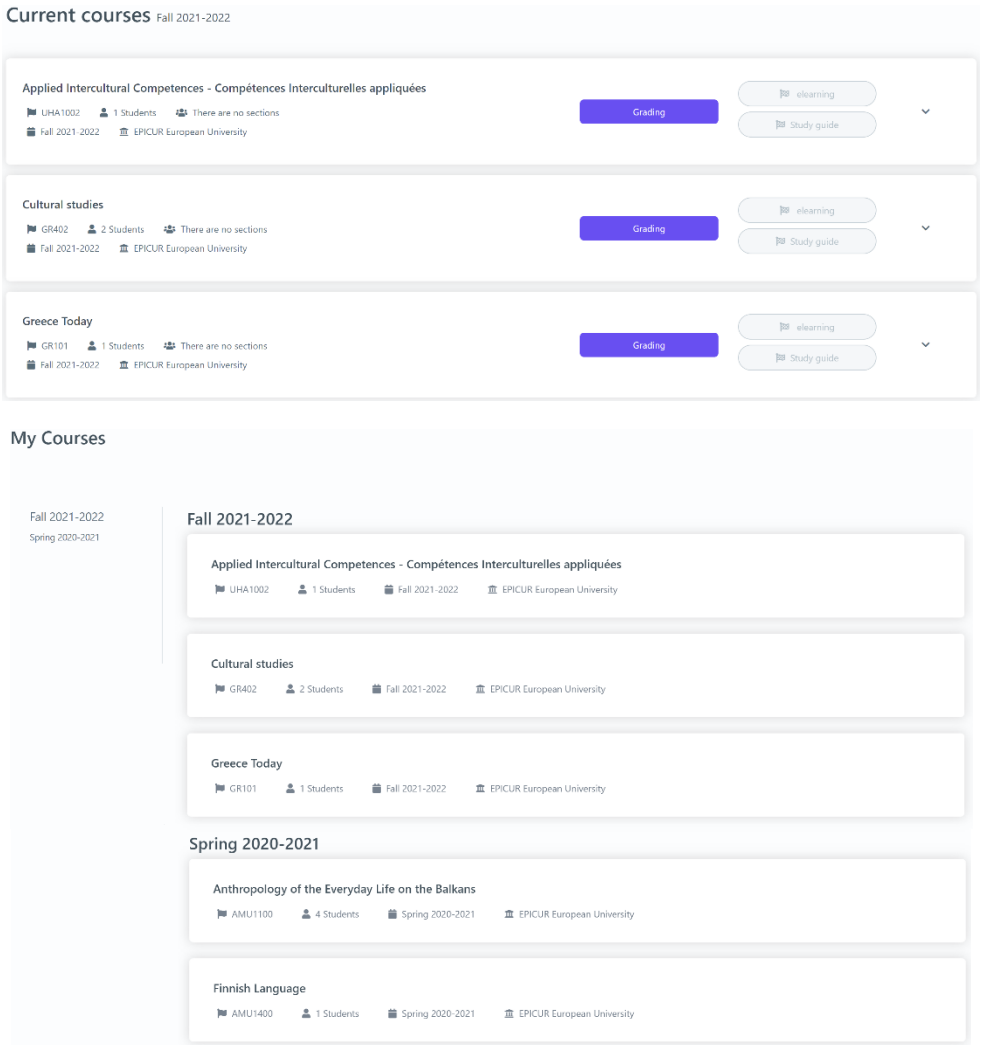

Figure 54: Search Courses functionality: a) Current courses, b) My courses

Table 52: Search Courses functionality

Functionality Name	Search Courses
Actors	Lecturers
Input Data	-
Description	The user can search for a group of his/her courses or a specific course by following the steps: **For Current courses**: 1. selects the **Courses->Current courses** option from the VURS's menu bar **For My courses**: 1. selects the **Courses->My courses** option from the VURS's menu bar 2. finds course by searching/filtering them by academic period
Output Data	A list of the courses that satisfy the defined requirements appears.

2.5.3 Preview Course Class

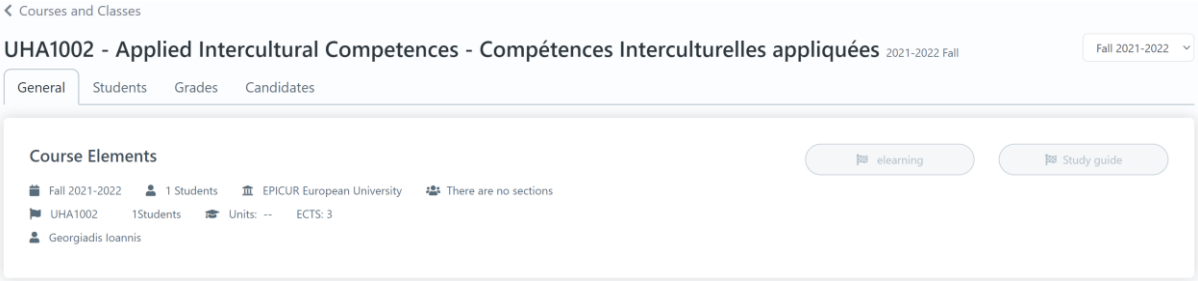

Figure 55: Preview Course Class functionality

Table 53: Preview Course Class functionality

Functionality Name	Preview Course Class
Actors	Lecturers
Input Data	-
Description	The user can preview a course class by following the steps: **From Current courses**: 1. searches for a specific course on **Current courses** page 2. clicks arrow icon 3. selects **More** option **From My courses**: 1. searches for a specific course on **My courses** page 2. clicks on the specific course
Output Data	The page with all the class's information is loaded where there are four tabs: General, Students, Grades, Candidates.

2.5.4 *View Class Students*

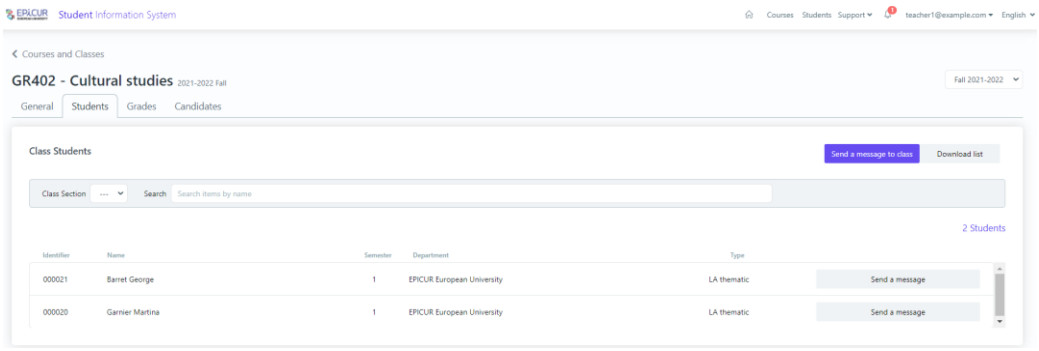

Figure 56: View Class Students functionality

Table 54: View Class Students functionality

Functionality Name	View Class Students
Actors	Lecturers
Input Data	**Communicate with students**: Subject, Short message, Attach File (optional)
Description	The user can view the students of a class, communicate with them and download a list of their information by following the steps: 1. visits the preview page of a course class 2. selects the **Students** tab **To communicate with students**:

	3. clicks **Send a message to class** button to communicate with all the students or clicks **Send a message** button to a specific student to communicate with him/her. 4. completes the message form (Subject, Write a short message, attach file) and sends it **To download list of students**: 3. clicks **Download list** button
Output Data	The list with all the students of the class is loaded. For "Send message" action, a loading bar appears and after the completion the popup form closes. By clicking the **Download list** button, the file with students' information of the class is downloaded to the user's computer.

2.5.5 Grade students

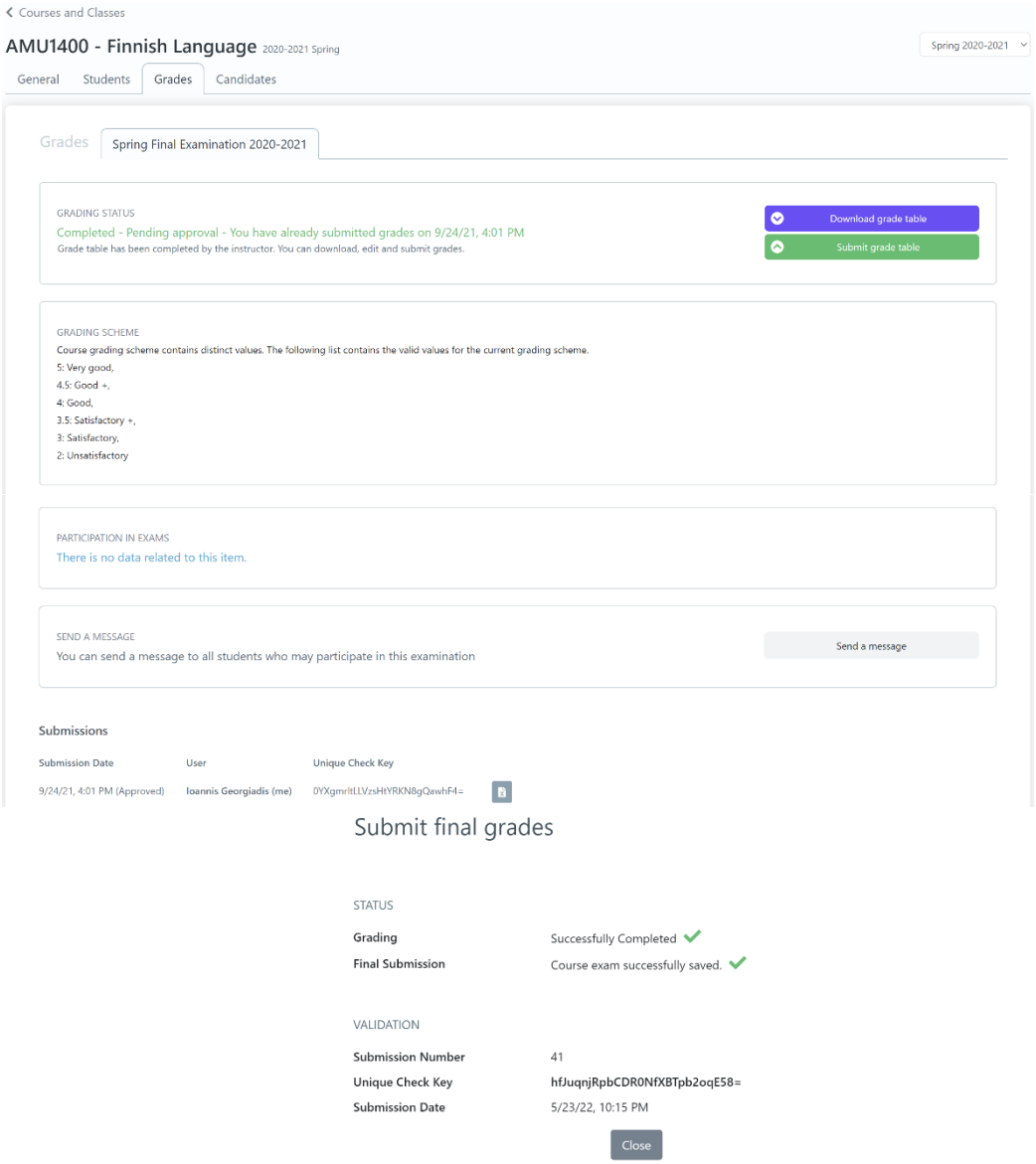

Figure 57: Grade Students functionality: a) Grades page of a course class, b) completion of submission

Table 55: Grade Students functionality

Functionality Name	Grade Students

Actors	Lecturers
Input Data	Grade table file
Description	The user can grade the students of a class by following the steps: 1. visits class students page 2. clicks **Download list** button to download the list of students' information where there is a column with the name Grade. 3. after preparing grade table file, selects **Grades** tab on the preview page of the course class 4. clicks **Submit grade table** button 5. uploads grades file and clicks **Upload and continue** button 6. clicks **Accept and finalize** button to complete submission you will be informed about your submission status On the Grades page, the user can view the submission status under the **Submissions** section.
Output Data	Information about the status and proof of submission appears.

2.6 Candidates

2.6.1 View Mobility Applications

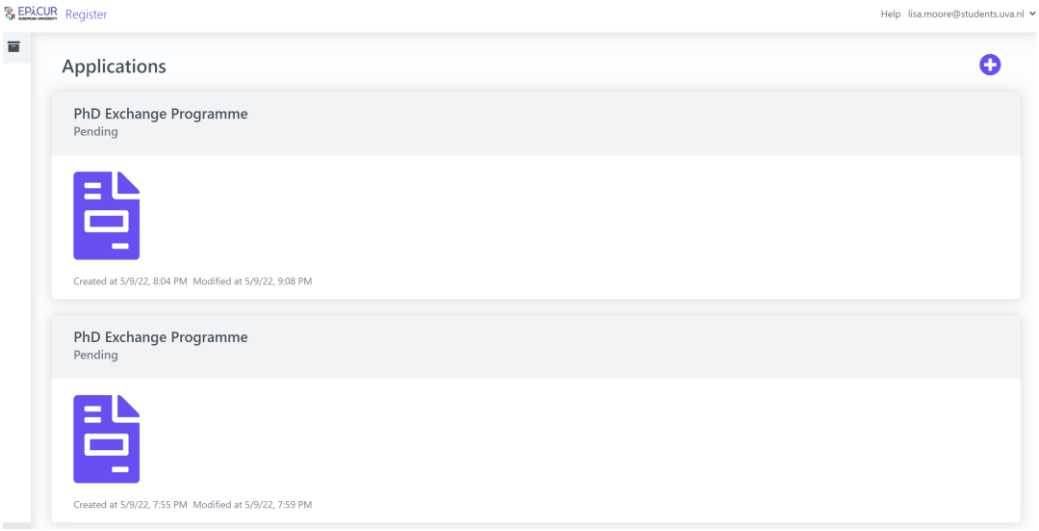

Figure 58: View Mobility Applications functionality

Table 56: View Mobility Applications functionality

Functionality Name	View Mobility Applications
Actors	Candidates
Input Data	-
Description	The user can view his/her applications and their status by following the steps: 1. selects the home option from the VURS's sidebar menu
Output Data	The page with the list of user's applications and their status is loaded.

2.6.2 Submit Mobility Application

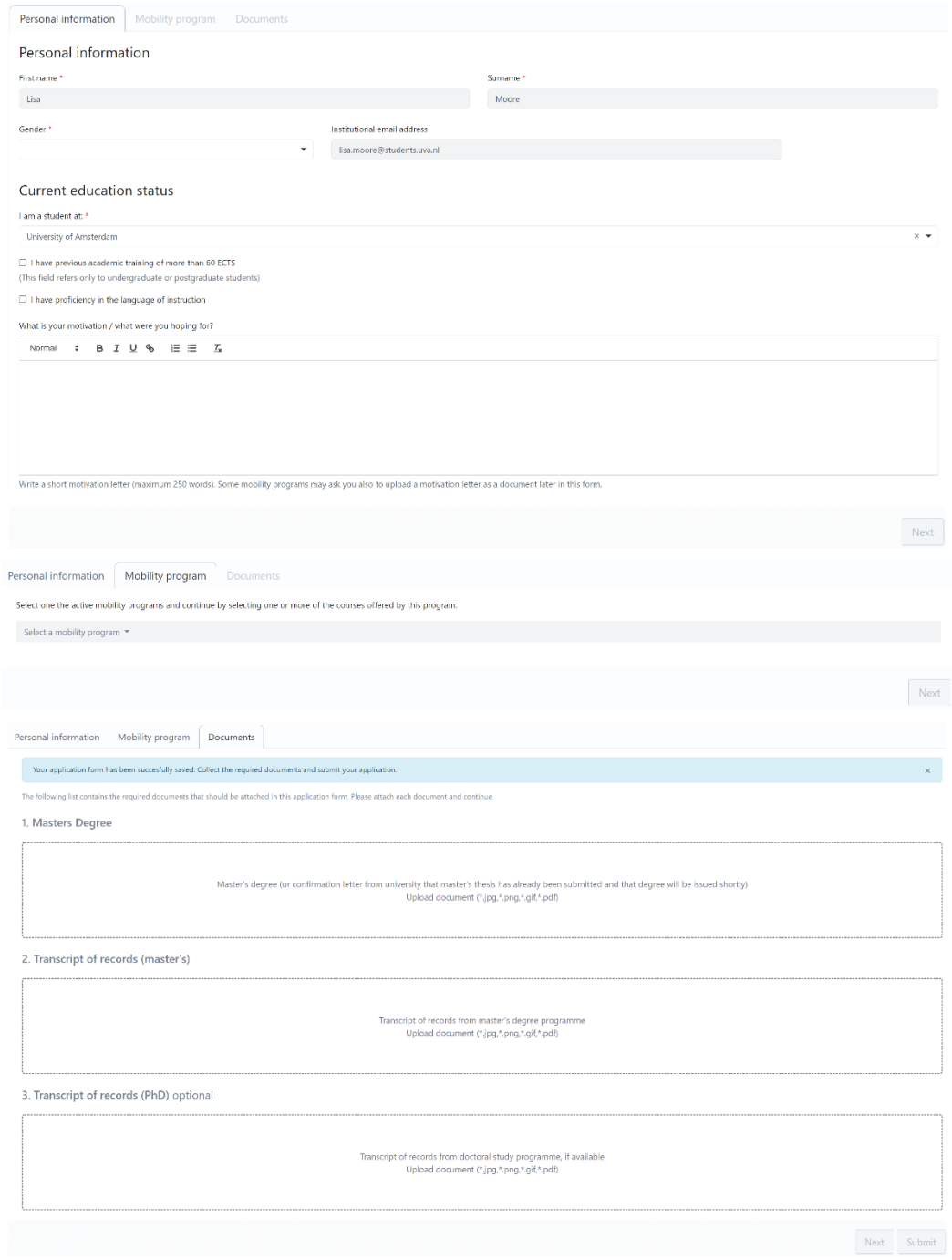

Figure 59: Submit Mobility Application functionality a) Personal Information tab, b) Mobility program tab, c) Documents tab

Table 57: Submit Mobility Application functionality

Functionality Name	Submit Mobility Application
Actors	Candidates
Input Data	• **Personal Information**: – Required: First Name, Surname, Gender, I am a student at (Current education status) – Optional: (Current education status) I have previous academic training of more than 60 ECTS, I have a

	proficiency in the language of instruction, What is your motivation / what were you hoping for? • **Mobility program**: – Required: Select a mobility program, Select courses • **Documents**: – Required: Upload documents – Optional: Upload proficiency in focus language, Upload proof of enrolment
Description	The user can apply for a mobility program by following the steps: 1. selects plus sign button on the dashboard 2. completes the application where there are three tabs (clicks **Next** button to navigate to the next tab): Personal Information (completes a form), Mobility program (selects mobility and courses), Documents (upload documents). For some types of documents exist a template document that can be downloaded by clicking **Download document template** button. 3. submits the application 4. finalizes submission by clicking **OK** button on the confirmation popup window that is shown
Output Data	The user receives an email about his/her submission and the application is in the list of applications in dashboard.

2.6.3 Preview Mobility Application

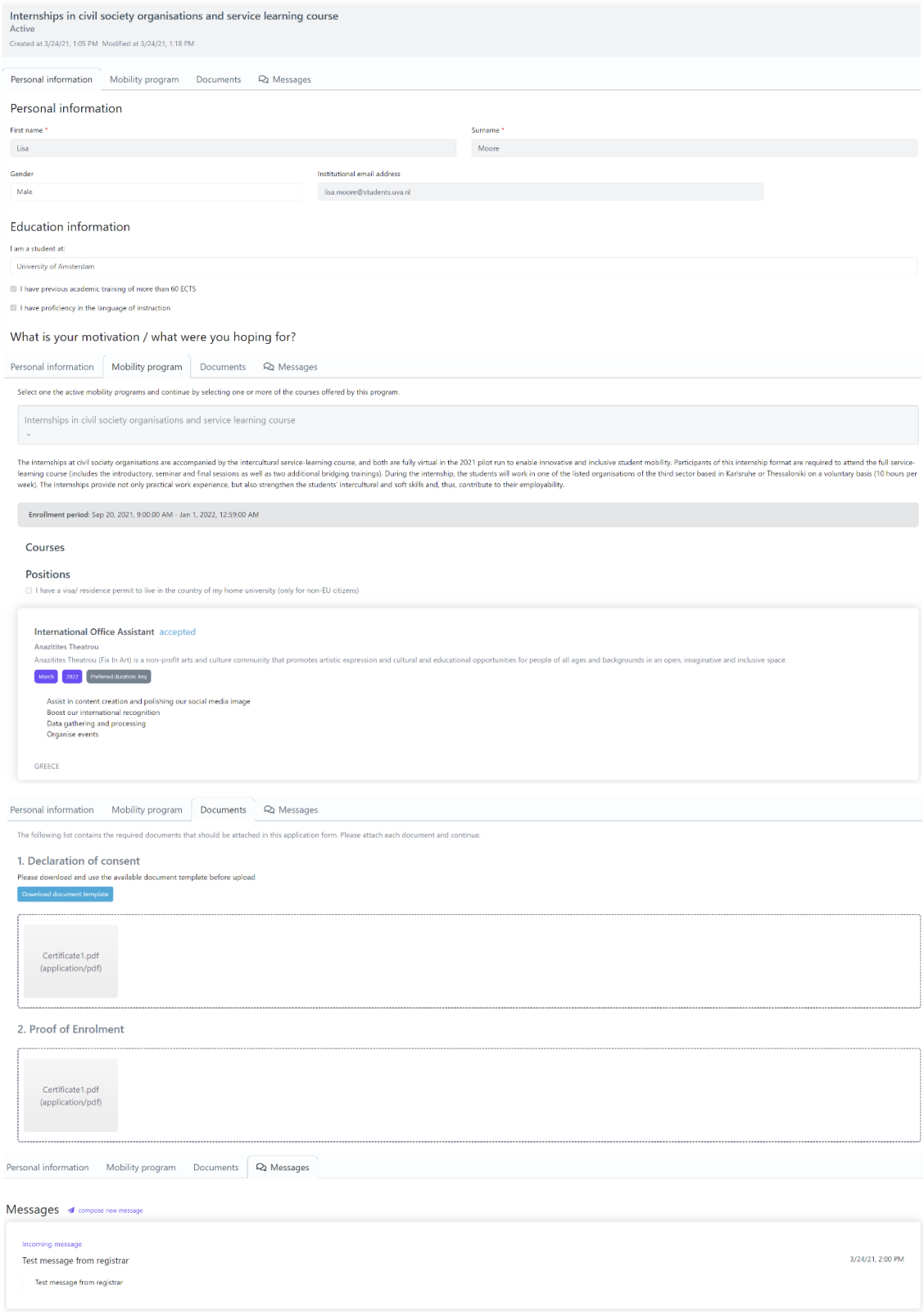

Figure 60: Preview Mobility Application functionality a) Personal Information tab, b) Mobility program tab, c) Documents tab, d) Messages tab

Table 58: Preview Mobility Application functionality

Functionality Name	Preview Mobility Application
Actors	Candidates

Input Data	• **Personal Information**: – Required: First Name, Surname, Gender, I am a student at (Current education status) – Optional: (Current education status) I have previous academic training of more than 60 ECTS, I have a proficiency in the language of instruction, What is your motivation / what were you hoping for? • **Mobility program**: – Required: Select a mobility program, Select courses • **Documents**: – Required: Upload documents (Depends on the mobility's requirements) – Optional: Upload documents (Depends on the mobility's requirements) • **Messages**: – Required: Short message – Optional: Subject
Description	The user can preview a mobility application's information by following the steps: 1. selects an application from applications list by clicking it on the dashboard **To complete a pending application**: 2. changes the application's information where there are three tabs (clicks **Next** button to navigate to the next tab): Personal Information, Mobility program (changes courses), Documents (upload documents) 3. submits the application 4. finalizes submission by clicking **OK** button on the verification popup window that is shown **To communicate with registrar (pending and active applications)**: 2. selects **Messages** tab 3. clicks **Compose a new message** 4. completes the message form (Subject, Write a short message) and sends it
Output Data	The page with all the application's information is loaded where there are four tabs: Personal Information, Mobility program, Documents, Messages. For "Send message" action, the result is shown in the application's **Messages** tab. For "Complete a pending application" action, the user receives an email about his/her submission.

3 Virtual Campus Learning Platform (VCLP)

This section is presenting briefly the VCLP landing pages and the process of the decentralised course delivery in EPICUR using VCLP and the local (institutional) Learning Management Systems (LMSs).

3.1 Introduction

The VCLP is a full Learning Management System, based on ILIAS. It is completely web-based, hence requires only a web browser and no additional software to use it. Important information about the course offerings for students from the EPICUR partners are offered though the public available part of the VCLP (chapter 4.2). Login is possible with your existing university account (chapter 4.3). EPICUR courses can be directly hosted on the VCLP. However, the VCLP is also integrated with local LMS running at each university through a decentralized LMS server. In such a way the EPICUR courses offered can be hosted on local LMS servers. EPICUR students from other universities can access the courses though the VCLP (chapter 4.4)

3.2 VCLP landing page

The VCLP offers a comprehensive landing page, where the different mobility programs are offered in large tiles in the typical EPICUR colour scheme. There are also large buttons to log in, to apply for EPICUR courses via the VURS and a support and help page. Also, news are shown for upcoming EPICUR events. The page is designed in such a way, that it is also easily readable on mobile devices. With limited space the layout of the page is adjusted accordingly. The main landing page is available for every visitor of the VCLP, a login is not required.

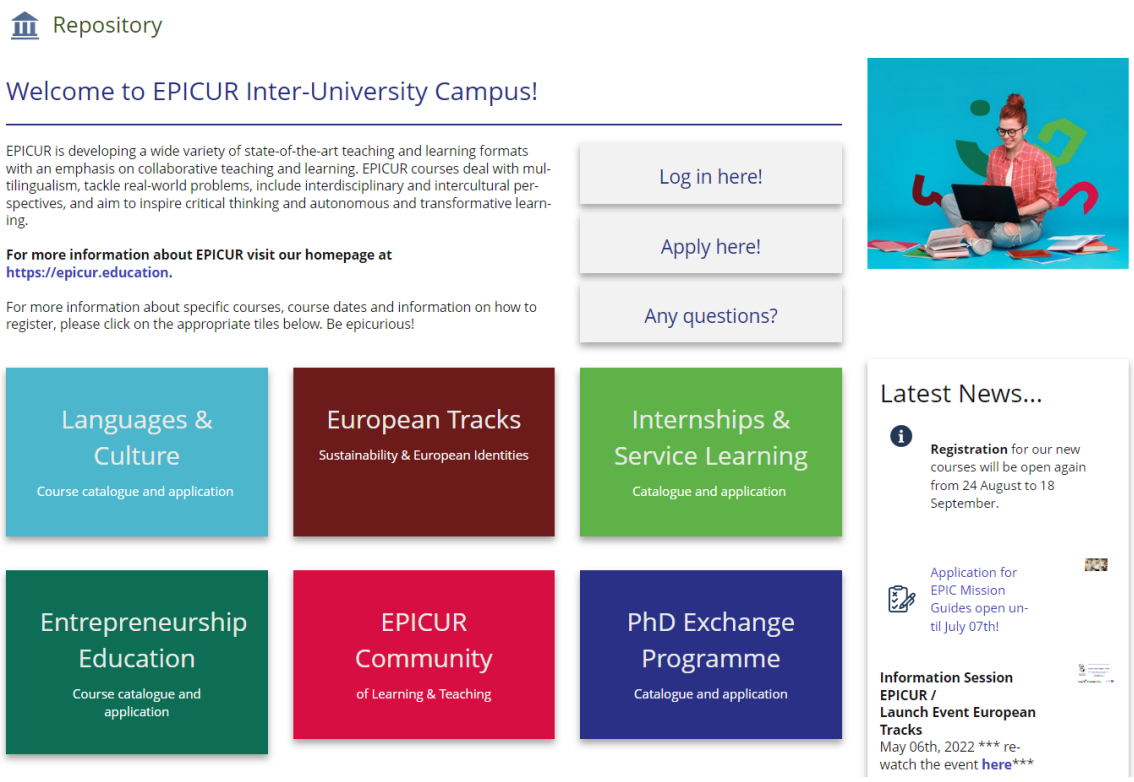

Figure 61: The Landing Page of the VCLP

By clicking on one of the large, coloured tiles of the mobility program, the course catalogue is displayed. This course information is directly fetched from the VURS system by using a request in the background. This has the advantage that the course information only must be entered once by the EPICUR administrative stuff at the local university. Interested students can browse the course catalogue and if

logged in find a direct link to register for those courses. In addition, the VCLP also provides a help forum for students.

Figure 62: Languages & Culture mobility program page

In order to maintain the clarity and a good overview of the available courses, the course catalogue in the VCLP is showing only a subset of all available attributes of a course, which consists of the most important information. If a student is interested in a course in detail, a link to the detailed course catalogue in the VURS is available.

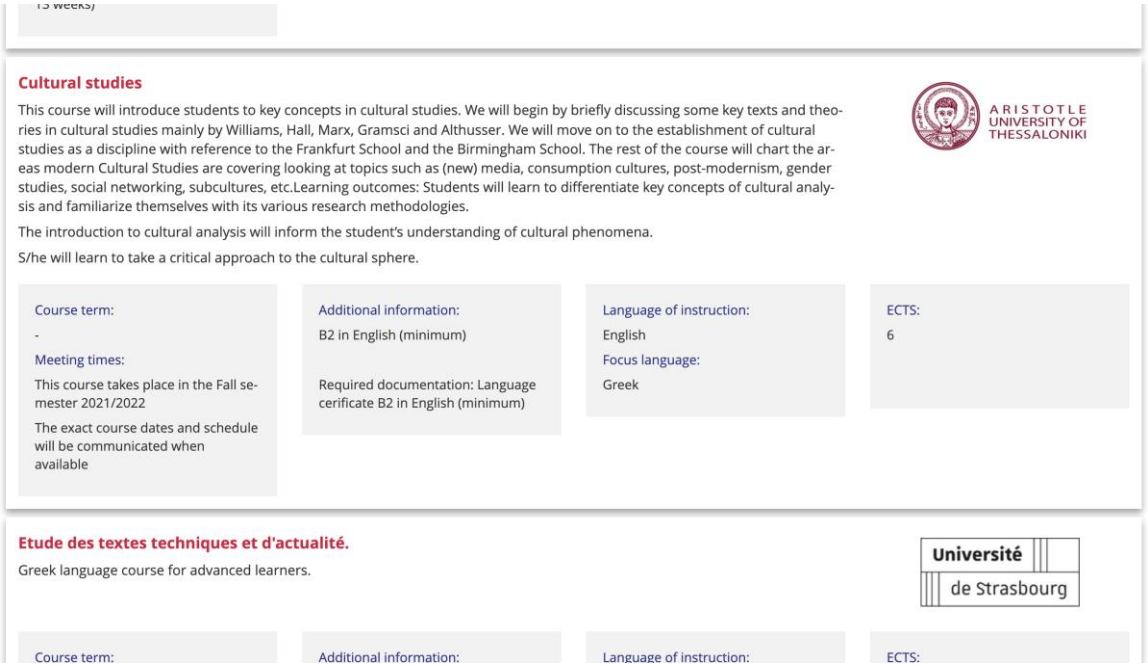

Figure 63: Example of one EPICUR course as displayed in the VCLP course catalogue

3.3 Single Sign On

To access your courses or use non-public functionalities of VCLP as a teacher or student it is required to log in. VCLP does not require to register a new account. Instead, VCLP offers a Single Sign On mechanism, where the existing local account each member already has at their university is used for authentication. In such a way it is not necessary to store passwords on the VCLP. In addition, due to the Single-Sign-On aspect of Shibboleth, entering your user credentials is not required if you have already signed in on the Identity Provider for using another university system.

Figure 64: Login Screen of the VCLP – Selection of the home institution

The VCLP stores no passwords, but other personal data of EPICUR members, like first name, last name and email address. Since the VCLP is self-hosted by the Karlsruhe Institute of Technology, the KIT is also the responsible party or so-called "Controller of Data Processing". The KIT hosts the VCLP on its own infrastructure at the "Steinbuch Centre for Computing" (SCC) and does not use any cloud storage outside the KIT facilities. The data privacy policy describes the rights for users according to the "General Data Protection Regulation" (GDPR) of the EU and states the technical measures the KIT has taken to protect the personal data from abuse.

3.4 Decentralized course delivery

Offering an EPICUR course directly on the VCLP requires the teachers in many cases to get familiar with a new Learning Management System. This requires additional training and support, which is time-consuming and might often costs money. This is especially true if you are not yet familiar with the ILIAS LMS. In addition, the same offered courses for EPICUR students are also offered as local courses at the university. In these cases, teachers would have to offer the same course on two different learning platforms (VCLP and local Learning Management System). Moreover, since both groups of students are in different LMS, they do not have the ability to communicate with the other student group via the platform (like chat, forums, comments etc.)

To overcome these limitations, the VCLP does use the feature to connect it to other LMS. This is achieved by bridging the VCLP to the other local LMS via a central middleware (Decentralized LMS server). This middleware is a message-based platform, which receives events as messages from one connected Learning Platform and routes this message to other Learning Platforms. This middleware platform is completely invisible to normal users and works in the background.

Any data exchange between the LMS and the Decentralized LMS server is done in a secured and encrypted way. The authentication of the LMS to the Decentralized LMS server is done by SSL client-certificates, so no third party gets access to the Decentralized LMS server or the connected LMS. Only

client certificates issued by the KIT can be used to identify and authenticate an approved LMS. The encryption of the messages is done by standardized Transport Layer Security (TLS).

The Decentralized LMS server is used in the EPICUR context for two important features:

- Course sharing from local LMS to the VCLP
- Course access to the local course from the VCLP

3.4.1 Course sharing

A course on one LMS can be shared (or released) with other connected LMS. While this would technically allow any course on one LMS to appear on all other platforms, this feature is restricted by administrative settings in such a way that it is only possible to share courses from local LMS to the VCLP. In the connected local LMS course settings an additional option is provided. Using this setting course administrators can share (or "export", "release") an existing course to the VCLP. This can be set for each course individually.

If a course administrator chooses to share a course to the VCLP, the course will appear on the VCLP in the main category "My EPICUR courses". This category is linked directly from the landing page if the user is logged in. In addition to the name of the course a short description is also optional available. It also states the university on which the course is hosted.

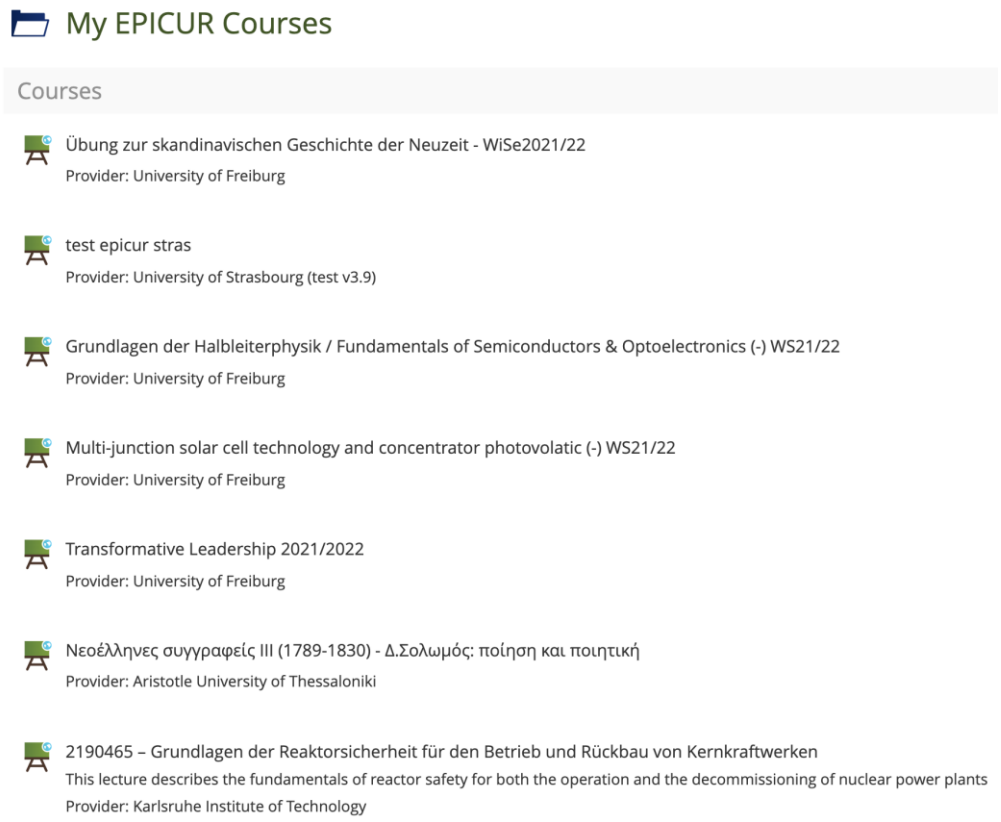

Figure 65: The "My EPICUR courses" category contains the available courses for a student

However, any shared course will be at first invisible to any user except VCLP administrators. Only students who have been approved for a course will be able to see the course link. This is achieved through the VURS transmitting the approved user accounts to the VCLP via a web service. In doing so the students will have a better overview of their accessible courses and are not confused with a long list of inaccessible courses.

3.4.2 Course access

By clicking on a course that has been shared from a local LMS to the VCLP in the "My EPICUR courses" category, the logged in user will be directly forwarded to the local LMS and if necessary, a

new user account on the local LMS will be created. This account is special in such a way, that it is for EPICUR students only and allows access to the local course. By Decentralized LMS server design it is always prefixed with the organization name set in the Decentralized LMS server, which is “EPICUR_” for the VCLP. For example, if a user has the VCLP account “john.doe@kit.edu”, the username on the local LMS will be “EPICUR_john.doe@kit.edu”.

Technically the authentication between the VCLP and the local LMS is done via the Decentralized LMS server. On clicking a course link on the VCLP, a special random token combined with a computed value (hash) of several user attributes is generated by the VCLP and transmitted to the Decentralized LMS server. Then the user will be forwarded to the course on the local LMS. Thereby also user attributes, like username, first and last name and email address are transmitted in the URL. The local LMS reads also the VCLP token from the Decentralized LMS server, calculates the hash value again and compares it. If both values match, the user is successfully authenticated. This process happens in the background and usually takes less than a second, so it is completely transparent to the user and does not disturb the user experience.