



**ACCESSIBILITY AND HARMONIZATION OF HIGHER
EDUCATION IN CENTRAL ASIA THROUGH CURRICULUM
MODERNIZATION AND DEVELOPMENT**

Project № 561553-EPP-1-2015-1-BG-EPPKA2-CBHE-JP

**ERASMUS+ Programme
KA2 - Capacity-building in the Field of Higher Education**

Coordinated by Burgas Free University

**WP1 Research
Dev. 1.1
App. 8.4 Institutional Report – FHJ, Austria**



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Language	English

INSTITUTIONAL SUMMARY REPORT – P4 FHJ, Austria**A. General Information****COUNTRY:** Austria**INSTITUTION** (Full name and abbreviation): FH JOANNEUM Gesellschaft mbH; FHJ**ADDRESS:** Alte Poststraße 149**FACULTIES** (or other university units):

1. Applied computer sciences
2. Engineering
3. Health studies
4. Building, energy and society
5. Media & Design
6. Management

*(Please, add as many rows as necessary.)***B. Information related to Engineering and Engineering Trade Subject Area****I. Academic Programs in Engineering and Engineering Trade Subject Area**

Please, specify only Bachelor's and/or Master's Degree Programs which the university is expected to provide education in over the period of the Project (the next three academic years: 2015-18)¹, with indication of the Area (see table) where the academic program should be considered.

Engineering	Area 1 (covers all types of classical Engineering degrees including electrical, mechanical, electronic, agricultural, aerospace, civil, mine, telecommunication, computer, etc.)
Engineering Trade	Area 2 (covers all types of general industrial Engineering degrees including design, logistics, management, business, etc.)

Table 1. Description of Academic Programs in the field of Engineering and Engineering Trade

Area	Name of the Academic Program	Educational degree provided (<i>Bachelor, Master</i>)	Form of study (<i>part-time, full-time, distant education</i>)	Approximate total number of students	Total number of academic staff
1	Electronics and computer engineering	Bachelor	Full time	60	29
1	Automotive	Bachelor/Master	Full time	160/75	30

¹If the university does not offer academic programs in Engineering and Engineering Trade subject area, please, in Table 1 fill in academic programs whose program's curriculum includes courses/subjects related to Engineering Sciences.

	engineering				
1	Aviation	Bachelor/Master	Full time	100/50	45
1	Advanced electronics engineering	Master		40	34
2	Energy, transport and environmental management	Bachelor	Full time	100	37
2	Construction design and economics	Bachelor	Full time	180	40
1	Construction management and engineering	Master	Full time	60	29
2	Industrial design	Bachelor/Master	Full time	50	30
2	Industrial management	Bachelor	Full time /part time	120/75	57
2	International Industrial Management	Master	Full time /part time	40/40	43

(Please, add as many rows as necessary.)

II. Current State of Education

Please, provide the following information for your university.

II.1. Quality of the Program's Curriculum and the Teaching Programs. Provide the information for each general type of Bachelor Degree and Master Degree.

a) The indicators in this section refer to the Program's Curriculum. They aim to assess the consistency of the academic program with the requirements of the European higher education (please write down just the total length and the number of ECTS of each type).

Share of core (required), Compulsory Specialized subjects, specialized subjects, common and optional subjects, and elective courses included in the Program's curriculum. In the following table:

- **Type:** may refer to (bachelor/master/professional bachelor/academic bachelor, and similar categories in case you have such types of degrees at your university)
- **Area:** may refer to Area 1 or Area 2 as defined in B.1

Table 2. Number of ECTS within each Type/area Degree

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 1/B/Electronics and computer engineering	BASIC COMPULSORY	60
	CORE or COMPULSORY SPECIALIZED	61

	SPECIALIZED or RELATED	
	OPTIONAL OR ELECTIVE	14
	Internship or training activities	20
	Final project or final dissertation	25
	TOTAL PER TYPE OF DEGREE OR MASTER	180

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 1/B/Adv. Electronics and computer engineering	BASIC COMPULSORY	5
	CORE or COMPULSORY SPECIALIZED	54
	SPECIALIZED or RELATED	26
	OPTIONAL OR ELECTIVE	
	Internship or training activities	-
	Final project or final dissertation	35
	TOTAL PER TYPE OF DEGREE OR MASTER	120

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 1/B Automotive	BASIC COMPULSORY	60
	CORE or COMPULSORY SPECIALIZED	85
	SPECIALIZED or RELATED	
	OPTIONAL OR ELECTIVE	
	Internship or training activities	24
	Final project or final dissertation	11
	TOTAL PER TYPE OF DEGREE OR MASTER	180

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 1/M Automotive	BASIC COMPULSORY	
	CORE or COMPULSORY SPECIALIZED	80
	SPECIALIZED or RELATED	
	OPTIONAL OR ELECTIVE	
	Internship or training activities	20
	Final project or final dissertation	20
	TOTAL PER TYPE OF DEGREE OR MASTER	120

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 1/B Aviation	BASIC COMPULSORY	59
	CORE or COMPULSORY SPECIALIZED	91
	SPECIALIZED or RELATED	
	OPTIONAL OR ELECTIVE	
	Internship or training activities	20
	Final project or final dissertation	10
	TOTAL PER TYPE OF DEGREE OR MASTER	180

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 1/M Aviaton	BASIC COMPULSORY	15
	CORE or COMPULSORY SPECIALIZED	40
	SPECIALIZED or RELATED	

	OPTIONAL OR ELECTIVE	10
	Internship or training activities	30
	Final project or final dissertation	25
	TOTAL PER TYPE OF DEGREE OR MASTER	120

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 1/M/Electronics and computer engineering	BASIC COMPULSORY	28
	CORE or COMPULSORY SPECIALIZED	33
	SPECIALIZED or RELATED	26
	OPTIONAL OR ELECTIVE	
	Internship or training activities	
	Final project or final dissertation	33
	TOTAL PER TYPE OF DEGREE OR MASTER	120

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 2/B/Energy, Environment and transport	BASIC COMPULSORY	50
	CORE or COMPULSORY SPECIALIZED	88
	SPECIALIZED or RELATED	10
	OPTIONAL OR ELECTIVE	
	Internship or training activities	21
	Final project or final dissertation	15
	TOTAL PER TYPE OF DEGREE OR MASTER	180

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 2/B/ Construction design and economics	BASIC COMPULSORY	35
	CORE or COMPULSORY SPECIALIZED	21
	SPECIALIZED or RELATED	92
	OPTIONAL OR ELECTIVE	
	Internship or training activities	25
	Final project or final dissertation	8
	TOTAL PER TYPE OF DEGREE OR MASTER	180

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 1/M/ Construction management and engineering	BASIC COMPULSORY	4
	CORE or COMPULSORY SPECIALIZED	31
	SPECIALIZED or RELATED	
	OPTIONAL OR ELECTIVE	24
	Internship or training activities	
	Final project or final dissertation	21
	TOTAL PER TYPE OF DEGREE OR MASTER	90

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 2/B/ Industrial design	BASIC COMPULSORY	12
	CORE or COMPULSORY SPECIALIZED	98
	SPECIALIZED or RELATED	
	OPTIONAL OR ELECTIVE	
	Internship or training activities	59
	Final project or final dissertation	11
	TOTAL PER TYPE OF DEGREE OR MASTER	180

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 2/M/ Industrial design	BASIC COMPULSORY	8
	CORE or COMPULSORY SPECIALIZED	52
	SPECIALIZED or RELATED	
	OPTIONAL OR ELECTIVE	
	Internship or training activities	30
	Final project or final dissertation	30
	TOTAL PER TYPE OF DEGREE OR MASTER	120

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 2/B/ Industrial management	BASIC COMPULSORY	66
	CORE or COMPULSORY SPECIALIZED	96
	SPECIALIZED or RELATED	
	OPTIONAL OR ELECTIVE	
	Internship or training activities	
	Final project or final dissertation	18
	TOTAL PER TYPE OF DEGREE OR MASTER	120

TYPE/AREA	SUBJECT TYPE	NUMBER OF ECTS
Area 2/M/ Industrial management	BASIC COMPULSORY	41
	CORE or COMPULSORY SPECIALIZED	53
	SPECIALIZED or RELATED	
	OPTIONAL OR ELECTIVE	
	Internship or training activities	
	Final project or final dissertation	26
	TOTAL PER TYPE OF DEGREE OR MASTER	120

(repeat the table for each type of degree or master)

b. Do you collect information on Program's curriculum, teaching programs, learning materials related to similar academic programs at European higher academic institutions (HEIs)?

Please, provide information about the ways to collect such data and give specific examples.

Scientific and teaching staff visits European universities via European mobility programmes. The institutes collect data via electronic databases

c. Share of the teaching staff with a doctoral degree/PhD (% of the full-time academic staff providing education at university or Faculty level) (average)

60%

d. Policy toward usage of modern approaches and methods of teaching

Please, give evidence on the usage of modern approaches and methods of teaching. Describe the policy for upgrading academic staff qualification. Mention specific actions taken such as seminars, workshops, training courses, etc. which aim to raise teachers' awareness of contemporary methods in higher education.

Regular teaching staff has to visit a 3 semester course on higher education didactics.. University employs a service department on innovative learn approaches. Additionally courses on moodle and actions are offered for teaching staff.

e. Existence of a Quality Assurance System at National level or International QAS followed. Please explain QAS, if any, to recognize degrees nationwide and follow up system, if any, to reaccredit degrees after being implemented for a given number of years.

In 2012, the Agency for Quality Assurance and Accreditation Austria (AQ Austria) was established as an agency for quality assurance for Austrian higher education institutions on the basis of the Act on Quality Assurance in Higher Education ([HS-QSG](#)).

According to AQ Austria's legal remit, AQ Austria is responsible for the entire higher education sector in Austria (with the exception of university colleges of teacher education). In carrying out its responsibilities, AQ Austria follows these basic principles:

- The higher education institutions (HEIs) bear the main responsibility for the quality of their activities and for quality assurance and improvement.
- AQ Austria understands its procedures as supplementary to an HEI's internal quality assurance. It is independent in what it does and not bound by any instructions. Decisions in quality assurance procedures are made exclusively in accordance with quality criteria.
- Quality assurance procedures are modelled on international good practice standards, especially the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).
- Cooperation with HEIs and other interested parties is the basis for the development of procedure rules and standards or criteria.

Degree programmes are accredited by the conference of universities of applied sciences. FIBAA certification for the department of management

f. Share of new courses (subjects) which have been introduced in the Program's curricula for the last 3 years (% of the total number of courses/subjects in the Program's curriculum)

10% approx.

g. Usage of contemporary references or bibliography recommended to students

Please, specify the approximate average number per University/Faculty/Department according with the data used at your university, specify which one.

Table 3. Bibliography/references

Share of core readings (references) issued over the last five (0-5) years (% of the total number of core readings)	Share of core readings (references) issued over the last ten (0 - 10) years (% of the total number of core readings)	Share of the digital references in e-format (% of the total number of references)
40%	90%	45%

II.2. ICT facilities and ICT based education

II.2.a This section aims to shed light on the usage of ICT-based facilities and teaching methods as well as the digital competencies of the teaching staff.

Table 4. ICT facilities

Indicator	Value
Teaching e-platform accessible to support general teaching activities	Yes
On-line platform for non-presential education courses	Yes
ICT lab facilities for students and percentage of students that access to them	ICT lab facilities Yes 100%
Number of software products used for educational purposes	32
Access to Wi-Fi at the university campus	Yes
Average share of academic hours per course/subject requiring usage of ICT- based teaching methods (i.e. computers and software, multimedia devices)	75%
Average share of academic hours per course/subject held in a computer lab	35%
Average share of the teaching staff who regularly use ICT-based methods of teaching	95
Type of e-learning devices used by teaching staff (i.e. personal computer, smartphones, tablets, etc.)	Personal computer, notebooks/laptops, smartphones, tablets

Devices used by students in classrooms (type of personal devices: i.e. laptop, smartphones, tablets, etc.)	Laptops, Tablets, smartphones
E-learning materials (e-based content) based on e-platform (i.e. Moodle, Sakai, Caroline, etc.)	Please, specify type only if you use an e-platform (ie chat, blog...) Shared folders and files, group folders and files, online feedback, online tests, wikis, online voting, online conferences, online games, messaging
Web based learning-MOOCs	Yes
Students evaluation methods	Traditional exam, online tests, multiple choice tests, project work, presentations, oral exams, cases
Other non-traditional evaluation methods for transversal competences	Peer evaluation,

III Digital Framework

1 Is your university following a strategic plan for Digital implementation? YES. Describe it in max 700 words.

the concept of e-learning is a wide variety, any use of computers and the Internet is a first step in this direction. E-learning is the modern way of teaching, which matches the needs of students and lifelong learners. The added value of e-learning is not only the temporally and locally independence, also the automatic documentation of the learning process, the simple possibility of coaching groups, and the transparency of learning outcomes and their assessment offers a great benefit. The participants who join this learning process acquire important skills for the knowledge-based society such as working in virtual teams, use of the web and virtual communication

2. Describe how your university develops its Digital Strategy in terms of Concerns and Key Actions during the last 2 years (i.e. training courses, sessions, workshops, financial assistance offered to academics for qualification upgrading, etc.):

Table 5. Digital Framework

	CONCERNS	KEY ACTIONS
Technology use by faculties, schools and University Services units CSUs of plans for technology use	-	-
Student experience and	Students know how to use the	Student training in

support in ICT use	technical infrastructure and eLearning Platform	infrastructure and eLearning platform at the beginning of studies
Administrative Staff training and support in ICT use to improve the digital competence	Administrative staff know how to use the technical infrastructure and eLearning Platform	Administrative staff training in infrastructure and eLearning platform available on demand
Faculty Staff training and support in ICT use to improve the digital competence	Faculty staff know how to use the technical infrastructure and other ICT tools and know how to embed technology in their teaching practice in order to support and enhance learning	A series of technical and didactical workshops: eLearning platform, wiki, test, workshop and video
Library services. Research tools	Access of students and employees to the library	Establishment of online catalogues. Usage of journal libraries
Technological support for assessment activities	Faculty staff can use technical tools to prepare assessment for students. Staff can organize assessment setting.	Separate eLearning platform for assessment purposes, technical/didactical support during preparation and during execution of tests
MOOCs or online courses	Faculty staff as well as student cooperation finds place between schools and departments. Students cooperate with learners from many different countries. Faculty and students gain experience with MOOC form of teaching and learning.	Design, plan, set up and support MOOCs
On-line services addressed to the students (class timetable, exam timetable, courses history, grades, digital library and etc.)	Offer students flexibility and multiple learning opportunities in their learning process	eLearning Platform (with course history), online administration (information, marks, ...), digital library

3. Describe the digital methodology used in your **Learning Environment, giving examples in different types of subjects related with the type of subjects described in B.1.**

You should include a small explanation with the following information:

- **Type of ICT methodology used:** (i.e. Blended learning, flipped learning, face-to-face learning, gamming learning, partnering learning, etc.)
- **Type of learning:** independent, collaborative, formally scheduled.
- **Feedback:** student, faculty and administrative staff
- **Digital facilities:** i.e. Meetings, seminars, conferences, exhibitions, social and community activities

IV. Competitiveness of Education

The goal is to assess the competitiveness of your university and the academic program at a national, regional and EU-wide level as well as its conformity with the labor market requirements.

1. Do you receive a feedback from students – current and former ones – about the quality of education in the academic programs? Please answer at university level, Faculties or by areas described in Table 1, according with the characteristics and data of your institution giving information about the ways for collecting such information (i.e. questionnaires, surveys; regular meetings with graduates; alumni associations, etc.). Present specific documents, if applicable. Summarize the results.

Each course is evaluated by the students after course ends . Alumni are asked to participate in surveys to ask for the quality of their education and future developments to be considered

2. Do you collect information from employers of your students about the quality of education and students' professional qualification and preparation? Please, give information about the ways for collecting such information (i.e. questionnaires, surveys; regular meetings with employers, employers' associations, labor market institutions, etc.). Present specific documents, if applicable. Summarize the results.

Survey among employers of students every two years. Involvement in the development of curricula (mandatory by law.). Representatives of employers have to be part of the development team of degree programmes

3. Student and teaching staff mobility per University/Faculty/Area described in table 1

Total number of students per year over the last 2 years who have <u>studied</u> abroad (excluding the EU countries)	~75 (Please, specify the total number of students and the countries which students prefer. Take into account students' mobility programs, students' exchange programs, research grants, etc.)
Total number of student per year over the last 2 years who have <u>studied</u> in the EU	~350 (Please, specify the total number and the EU countries which students prefer. Take into account students' mobility programs, students' exchange programs, research grants, etc.)
Total number of teachers per year over the last 2 years who have visited foreign academic institutions (excluding the EU countries) for the purposes of delivering lectures/seminars, conducting scientific research, project participation	~20 (Please, specify the total number and the share in the full-time faculty staff and the most visited EU member states.)
Total number of teachers per year over the last 2 years who have visited academic institutions in the EU for the purposes of delivering lectures/seminars, conducting scientific research, project participation.	~50. (Please, specify the total number and the share in the full-time faculty staff and the most visited EU member states.)

4. Employability of graduates. (Please provide information by University/Faculty/Areas as described in Table 1 if such data is known and available.)

The next two indicators estimate the degree of qualification mismatch for your graduates. Please, provide data on:

- Share of graduates (% of the average total number of graduates per year) who over the last 5 years have started a job which require professional qualification and theoretical knowledge in the field of Engineering and Engineering Trade. These are students who work in accordance with their field of study/specialty (this indicator is related to the extent of horizontal qualification mismatch).

70%

- Share of graduates (% of the average total number of graduates per year) who over the last 5 years have taken working positions which require the same educational degree (i.e. bachelor or master) as that they possess. These are students who work in accordance with the educational degree acquired (this indicator is related to the extent of vertical qualification mismatch).

95%

.....
(Please, provide an analysis of the results and discuss the reasons in case of low shares)

In short: The students work in close cooperation with industry and often they are already in touch with their future employers. Furthermore students' education is less theoretical but more applied and tailored to the industry needs

5. Education and training provided in a real-life working environment

5.1. Per areas described in table 1, please share the courses/subjects type for which part or all classes are conducted in a real-life working environment (i.e. companies, banks, factories, etc.)

Project courses in 3 degree programmes

Electronics lab

Mechatronic lab

Eletronical measurement in cars

Avionics

5.2. The average number of academic hours per course/subject conducted in a real-life environment

5 to 40%

5.3. Additional evidence on the practical orientation of the study and the practical training of students (i.e. internships during study, etc.).

Internship is mandatory for all bachelor students and some master degree programmes.

6. University – Business links

Please, provide information on participation of specialists, experts, entrepreneurs, etc. in the educational process and/or curricula development, if any. Specify the average share of lectures/seminars delivered by them (% of total academic hours per course/subject.)

Between 10 and 20% of courses have also lecturers from industry

7. Does your university study the current tendencies and requirements of the labor market?

(Please, provide specific information about the ways to collect labor market data. Describe records, databases, analysis you prepare, if any.)

- Surveys among employers and alumni
- Direct contacts with employers and university graduates through the Alumni Association
- Labor market data and statistics
- Trend studies

8. Does your university/faculty offer or plan to offer joint degree programs with partner universities?

Yes

9. Please, discuss the Lifelong Learning (LLL) policy of your institution such as students, alumni, company members, retired citizens, other actions.

As a UAS, FH JOANNEUM is perceived as a strong and creative partner to Styria's public institutions and industrial enterprises – and especially SMEs – when it comes to technological and commercial innovations. Via diverse support programmes our university offers courses in adult and vet education for companies and individuals.

10. Future teaching methodologies and their implementation

Thinking about future students, current learning strategies followed by many of them before entering university, and ICT technologies:

Which key competences, skills and practices do you think that will be needed at university level to enhance students learning experience? Explain briefly under faculty staff, student and stakeholders' point of view.

Teacher has to be more acquainted and open-minded concerning new ICT teaching approaches.