

A Double Degree Agreement

for the

Bachelor degree

between

University of Jaén (UoJA)

Bachelor of Engineering B. Se. {Eng.}

and

University of Applied Sciences Schmalkalden
{UoAS}

Bachelor of Engineering {B. Eng.}

1. Scope of the agreement

This agreement is signed between the University of Jaén and the University of Applied Sciences Schmalkalden and aims to introduce the necessary terms, clarified in article 2 of that agreement.

This agreement determines the code of conduct concerning the double degree program, which involves the degree program of Mechanical Engineering of University of Applied Sciences Schmalkalden (UoAS) and the degree program of Mechanical Engineering at the University of Jaén (UoJA). Participating students from both institutions shall have the opportunity to study at least one full academic year at the other institution, select courses according to this agreement and receive a bachelor certificate from both institutions. The teaching during the two semesters at the partner university related to this double degree program at both UoJA and UoAS is conducted in German language (UoAS) and Spanish language (UoJA), although students can choose the courses offered by UoAS and UoJA in English language as well.

The number of students will be agreed upon each year. Academic year consists of two semesters beginning in the autumn, ending in the spring or summer semester of the following year.

To qualify for a double degree, a student must complete studies equaling to at least 60 ECTS-credits from the curriculum of the partner institution, during one academic year. These studies will replace an equal amount of studies, which normally would be taken at the home institution.

Appendices 1 and 2 of this agreement include a list of courses available to the double degree students.

The lists of App. 1 and 2 shall be reviewed, updated and mutually approved annually. In both institutions 1 ECTS credit equals a students workload of 30 hours, which can include lectures, homework assignments, group work, virtual learning and independent studies plus evaluation/examination according to both institutions own specifications.

The student should have passed at least 90% of 125 ECTS and the internship (UoAS) or 180 ECTS (UoJA) in the sending institution, before the double degree studies begins.

In order to obtain a bachelor certificate from the host institution, students must pass in total 240 ECTS credits (including at least 15 ECTS credits of practical engineering placement for UoAS students). An essential part of the double degree will be the bachelor thesis. The students can perform his/her thesis work after having passed 30 ECTS studied in the receiving institution. The institution, where the degree thesis is carried out and defended will be defined in article 5 of this agreement.

2. Support for students transferring between the two institutions, including financial implications, pre-transfer preparation and introduction into the partner institution.

The following policy has been agreed on:

2.1 Application to join the scheme

- The application forms must be provided to the receiving party by the end of April for admittance the following semester.
- Acceptance or rejection of the applications will be provided to the sending party until the end of the semester, in which the student has submitted the application form.

- If the number of applications exceeds the agreed maximum amount of participating students, a priority shall be given to students who would have the highest benefit from participation in the program. The sending party shall do the prioritization. In case that the number of applicants exceeds the agreed maximum, each side has the right to rank their students according to criteria, based on the number of passed examinations and Grade Point Average (GPA).
2. Pre-transfer preparation (Conducted at, and by the home institution)
 - Details of the subjects and courses to be studied, the methods of studying (e.g. length of lectures requirements for self-study) at the partner institution shall be introduced to participating students.
 3. Introduction program (Conducted at, and by the host institution)
 - The students joining the double degree program shall participate in an introduction program - providing information concerning studying and living in the receiving country - at the receiving institution.
 4. Financial implications for the students transferring between the two Institutions
 The students transferring between the two institutions will have the following financial conditions:
 Fees.:
 - o On UoAS: Each semester at UoAS a small service fee has to be paid, which includes a free railway ticket for the railway domain of Thuringia (currently 81,90EUR).
 The fee must be paid until the end of semester during which the student will receive the double-degree- bachelor certificate.
 - o On UoJA: Students studying at UoJA will pay a graduation fee (120 euros approx.) once the study plan at the UoJA is completed. Furthermore, the fee for the pre-intensive Spanish language course (January) is 140€ approx. and must be paid by the exchange student him/herself. Extensive, Spanish language courses taught during both semesters are free for UoAS students at UoJA.
 - Accommodation: The student will receive support by the home institution to find accommodation but it will be paid by the student him/herself.
 - Travel: The students themselves shall cover all expenses international and national.
 - Books and other teaching material including printing and copying expenses : paid by the students themselves.
 - The students participating in the program shall cover other everyday life expenses . Both institutions can use their own national funding for financing their own students.
 3. **Student privileges / obligations**
 During the exchange period, the students will enjoy the same privileges and adhere to the same regulations as other degree program students in the receiving institution. Students will participate in all evaluations/examinations in the courses they have signed up for at the host institution.
 4. **Admission criteria - required ECTS points for the assignment**

Each university permits its students to the DD-Program, according to the criteria set out in this agreement. Students from the UoJA are allowed to join in the program if they fulfill the established curriculum (the compulsory subjects) in the credit system by the third year (sixth semester, 180 ECTS).

Students from the UoAS are allowed to join in the program if they fulfill more than 90% of the established curriculum in the credit system by the second year (fourth semester, 120 ECTS) and they successfully finished their engineering internship of the fifth semester with the defense of the report. An additional successfully passed module (5 ECTS) at this time, to reach finally 240ECTS, is recommended.

All other students are excluded from the DD program.

UoJA students must accredit knowledge in German language (minimum level B1 according to the European Framework of Reference for Languages).

5. Assessment arrangements and formal regulations including the degree thesis classification and procedures

Regulations concerning the degree thesis:

For Spanish students at UoAS:

- The degree thesis is carried out at the host university in English or German language. The topic of the thesis shall be defined at the home university;
- The scientific supervisors are from both institutions- one from UoJA and one from UoAS.
- The workload needed to complete the thesis shall equal to 10ECTS-credits
- The Bachelor exam finishes with a colloquium, which is 2 ECTS credits worth. The examination can take place at UoAS or at UoJA.
- Both exams - degree thesis and colloquium are examinations of UoAS

- = Note: The entire workload of 12 ECTS- credits corresponds to the credit system of the UoJA. A special module description is available in appendix 5.

For German students at UoJA:

- The regular specified schedule is, that German students will carry out their Bachelor thesis at UoAS after returning from Spain.
- In deviation of that, the thesis can be carried out at UoJA during an extended time range.
- The colloquium can take place at UoAS or at UoJA.
- It is recommended that the supervisors be from both institutions.
- The workload of the degree thesis will be 12ECTS-credits and the remuneration of the colloquium is 3 ECTS-credits according to the credit system of UoAS.

6. Exchange of grades at the end of each semester

The grades will be given as shown in appendix 4, by using the system in operation in UoAS and UoJA respectively.

Transcript of Records (ToR) shows the performance of the student in the partner university the courses she/he took, the grades and ECTS credits she/he received. The ToR is issued by the home institution before student's departure and by host university until the end of student's training. It will designate a person responsible for the administration of the ToR and their transfer into the partner university.

7. Management of the double degree program

Each university appoints in each academic year a manager of the DD-Program. The person in charge handles both the organization and implementation of the program as well as the exchange of information between the two universities. For the timely submission of grades between the universities, the relevant contact person is responsible.

Each university chooses individually the person in charge (DD-program manager) who is responsible for program implementation. This person is designated for a period of one academic year, which is specified in an addendum (additional agreement). After the end of the academic year the DD-program manager is reassigned automatically unless one of the parties specifically requests some changes. The functions and tasks, performed by the person in charge (DD-program manager) are: to organize and coordinate the activities for implementation of the DD-program; to consult and assist students participating in the program, as well as potential candidates, too; to organize the exchange of information between the two universities.

The main contacts concerning the double degree are:

- UoAS Dean of the Faculty of Mechanical Engineering
- UoJA Dean of the School of Engineering in Jaén

The agreement and its appendices shall be reviewed annually. The issues related to quality assurance should be reviewed four months before the start of the next period in case of student complaint; then suggestions for improvement shall be discussed in the same context.

8. Organization for conducting (holding) untaken exams at the partner university

Repeat tests, which cannot be passed during the stay at the partner university, are with duration of 120 minutes. They will be written the same time as the regular testing. The colleague who writes the exam sends the exam material to the contact person of its partner university. After completion of the test the contact person sends back the scanned exam papers to the instructor.

The untaken exams at the partner university are conducted in written form with duration 120 minutes. The date and time of the examination, as well as the organization for its holding are defined and prepared by the person in charge (supervisor) of the program in the partner university. He must inform the examining teacher, too. The content of the exam (questions, tests, tasks) will be sent from the examiner to the person in charge (supervisor). After the end of the exam the person in charge (supervisor) returns the materials to the examiner in a scanned form.

9. Design for the diplomas

Each of the universities shall issue a diploma for a completed educational and qualification degree in the higher education, according to state requirements for the content of key documents, issued by higher educational institutions.

Both institutions will issue a diploma for a degree in Bachelor of Engineering, professional field "Mechanical Engineering".

General statement in English is added to the diploma in the form of a diploma supplement. It contains the academic records for the studied subjects, the received grades and the name of the university, in which they are acquired.

An example for the design of the general application is shown at table 2:

Subjects	GradeuJA	GradeuAS
...		
Control Engineering	10	-
...		
Robotics	1.7	1.7

Table 2

10. Determination of Overall Grade

The overall grade in the general application is obtained by the formula below:

$$\text{Overall degree} = \frac{\sum_{i=1}^n (\text{Grade}_{UoJA,i} \times \text{Credit}_{UoJA,i}) + \sum_{j=1}^m (\text{Grade}_{UoAS,j} \times \text{Credit}_{UoAS,j})}{\sum_{i=1}^n \text{Credit}_{UoJA,i} + \sum_{j=1}^m \text{Credit}_{UoAS,j}}$$

Where courses studied in UoJA are indicated by $i=1,2,\dots,n$, and courses studied in UoAS by $j=1,2,\dots,m$.

11. Date and place of graduation ceremony

Each of the universities will issue the bachelor certificates and the diploma supplements when the full documentation, proving the successful conclusion of studying in the partner university, is received in the university. The date and the place for handing out the diplomas are specified according to the schedules and rules of the university. Each side should notify the partner university about that in the beginning of the school year. The diplomas could be mailed if the student wants, but the student will have to pay the postage costs.

12. Continuation and Termination

- The present agreement becomes effective upon the signature of the present documents. It is renewable for another period upon mutual e-mails from heads of institutions which forms an addendum to this contract.
- This agreement remains in full force and effect until either party UoAS or UoJA has given to the other not less than four months' notice before the beginning of a semester in writing of intention to terminate this agreement.

13. Disputes

In any event both parties undertake to make all reasonable efforts to ensure, that any disagreement shall not adversely affect students undertaking the studies according to this agreement.



Jaén, Spain

Place: Jaén, Spain

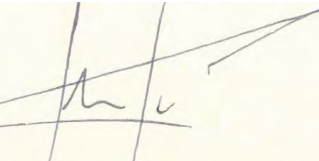
Date:

Signed:



 29.10.2013
 Rector

University Jaén


 29.10.2013
 Dean School of Engineering of Jaén,
 University of Jaén

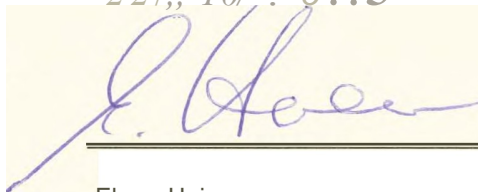
Schmalkalden, Germany

21.10, 2015


Place: Schmalkalden, Germany

Date: 22.10.2015

Signed:



Elmar Heinemann
 Rector
 University of Applied Sciences
 Schmalkalden



Robert Pietzsch
 Dean
 Faculty of Mechanical
 Engineering
 University of Applied Sciences
 Schmalkalden

Appendix 1

Selection of courses available at UoAS - status 2013, approved annually

Course program for Spanish students

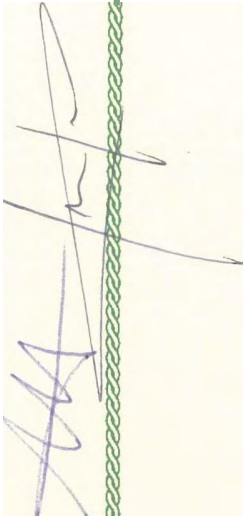
Winter Semester (7. Semester):		ECTS
20 ECTS are required from technical courses of group 1 or 4		
General course program (compare appendix 3)		
Fertigungstechnik 111 (compulsory)		5
Fertigungsmesstechnik (compulsory)		2,5
Electives of group 1 or group 4		15
Electives (all groups)		8
In summary:		30,5
<u>Group 1 (Mechanical Engineering). English language:</u>		
Robotics		5
Simulation of motion		5
Numerical Heat Transfer Simulation		5
Fundamentals of Vibration Engineering		5
Design of tools for metal forming		5
<u>Group 2 (International Office):</u>		
German for Foreigners		8
Intercultural Relations in Europe		3
German Culture		3
<u>Group 3 (other Faculties):</u>		
current offers: http://www.fh-schmalkalden.de/English+Taught+Classes.html		5
<u>Group 4 (Mechanical Engineering. German Language):</u>		
e.g. Material Science, Gear Technology, Fluid Dynamics / Heat Transfer, Metrology, Manufacturing, Design, Automation Engineering, Drive Technology, Industrial Management, Quality Management, Engines and Machines, Machine Tools, Production Management		5
Summer Semester (8. Semester):		ECTS
General course program (compare appendix 3):		
Degree thesis (written and defended in UoAS co-tutored from UoJA)		10
Colloquium		2
Kraft- und Arbeitsmaschinen (compulsory)		5
Fertigungstechnik IV (compulsory)		5
Konstruktion VI (compulsory)		5
Fertigungsmesstechnik (Lab exercise) (compulsory)		2,5
In summary:		29,5

Appendix 2

Selection of courses available at UoJA, courses for German students

	<u>Summer Semester (6. Semester): 30 ECTS from technical subjects</u>	ECT S
	General course program, (compare appendix 3):	
	Technical subjects of group 1, 3 or 4	30
	Language course of group 2	6
	Engineering project work during June till August	15
	<i>In summary:</i>	51
	<u>Group 1 (Mechanical Engineering):</u>	
	Applied manufacturing technologies (i.e. rapid prototyping)	6
	Machine maintenance	6
	Structural integrity in mechanical elements (fatigue, fluency, experimental measures of stress and deformation)	6
	Thermal facilities in industry	6
	Hydropower and windpower	6
	Industrial Construction and Architecture	6
	<u>Group 2 (International Office, Advanced Centre of Modern Languages):</u>	
	Pre-intensive Spanish language course 2 ECTS (January)	2
	Extensive Spanish Language course 4 ECTS (each semester), 8 ECTS in total	4
	Group 3 (other Faculties): http://eps.ujaen.es/titulaciones.html	X
	<u>Group 4 (Mechanical Engineering, Spanish Language):</u> Choose subjects of 5-8 semest.	X
	http://eps.ujaen.es/detalleTitulacion.php?ct=134A&cadena=gim	
	<u>Winter Semester (7. Semester): 30 ECTS from technical subjects</u>	ECT S
	General course program (compare appendix 3):	
	Technical subjects of group 1, 3 or 4	30
	Language course of group 2	4
	<i>In summary:</i>	34
	<u>Group 1 (Mechanical Engineering):</u>	
	Construction Materials and Topography	6
	Numerical Techniques & Geometric Modeling	3
	Advanced Techniques in Mechanical Engineering	6
	Thermal Facilities in Building	6
	Machining Engineering	6
	Industrial Fluid Mechanics	6
	<u>Group 2 (International Office, Advanced Centre of Modern Languages):</u>	
	Extensive Spanish Language course 4 ECTS (each semester), 8 ECTS in total	4

<u>Group 3 (other Faculties):</u> http://eps.ujaen.es/titulaciones.html	X
<u>Group 4 (Mechanical Engineering, Spanish Language):</u> Choose subjects of 5-8 semesters.	X
http://eps.ujaen.es/detalleTitulacion.php?ct=134A&cadena=gim	



Appendix 3

Double Degree studies of German students from UoAS in UoJA

Semester 1-4 in UoAS	120 ECTS
Practical training in a German company until end of November)	<u>15 ECTS</u>
Additional module	5 ECTS
Spring semester 1 st phase in UoJA (January 27-June 7, 6 ECTS of soft skills)	36 ECTS
Winter semester 2 nd phase in UoJA (4 ECTS of soft skills, examinations in January)	34 ECTS
Engineering project in UoJA (June 7 th until end of August)	15 ECTS
Bachelor thesis at UoAS:	<u>15 ECTS</u>
Sum:	240 ECTS

Double Degree studies of Spanish students from UoJA in UoAS

Semester 1-6 in UoJA	180 ECTS
Winter semester in UoAS (7 th semester)	30 ECTS
Summer semester in UoAS (8 th semester) from courses:	18 ECTS
Bachelor thesis and colloquium in UoAS (tutored by UoJA)	12 ECTS
Sum:	240 ECTS

Appendix 4

Comparison and translation of grades for UoAS and UoJA

Grade UoJA UoAS		Grade UoAS UoJA		Assessment Description
UoJA	FHS	FHS	UoJA	
10	1.0	1.0	10	Excellent
9	1.3	1.3	9	Excellent
8,5	1.7	1.7	8.5	Very good
8	2.0	2.0	8	Very good
7.5	2.3	2.3	7.5	Very good
7	2.7	2.7	7	Good
6.5	3.0	3.0	6.5	Good
6	3.3	3.3	6	Good
5.5	3.7	3.7	5.5	Sufficient
5	4.0	4.0	5	Sufficient
4 or <4	5.0	4.0	4 or <4	Fail

German Grading Scale:

- 1: is given for very good to excellent performance
- 2: is given for good performance
- 3: is given for satisfactory performance
- 4: is given for passed performance: is given for failed performance

Spanish Grading Scale:

- 9 -10: is given for excellent performance
- 7.5-8.9: is given for very good performance
- 6-7.4: is given for good performance
- 5-5.9: is given for satisfactory performance
- <5: is given for failed performance

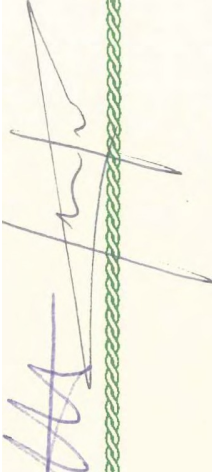
For faster calculations the following formulas can be used:

Transfer of Spanish grade (S) into German grade (G) :

$$G = 1,3 + 0,6875 \cdot [9 - S] \quad \text{for the range of } S = 9 \dots 5, \quad S=10 \text{ gives } G=1$$

Transfer of German grade (G) into : Spanish grade (S)

$S = 9,0 - 1,455 \cdot [G - 1,3]$ for the range of $G = 1,3 \dots 4$, $G=1,0$ gives
 $S=10$



Appendix 5

Bachelor Thesis and Colloquium for Spanish Students at UoAS (modules description)

Bachelor thesis:

Supervisor: Two professors of host and home university

Objectives: Solving of a complex engineering problem.
Use of systematic and scientific methods.

Contents: Investigation, comparison of different solution variants

Preconditions: at least 210 ECTS-Credits from passed modules of bachelor studies,
30 ECTS-Credits at the host university

Workload: 10 ECTS-Credits \approx 300 hours

Examination: written work (graded)

Colloquium:

Examiner: Supervisors of the thesis

Objectives: Discussion and communication of technical results

Contents: Presentation techniques.

Preconditions: at least 228 Credits from passed modules of bachelor studies,
thesis submitted

Workload: 2 ECTS-Credits \approx 60 hours for preparation and consultation

Examination: oral presentation, 20 min. (graded)