

## **KARŞI TARAF İLE YAPILAN YAZIŞMALAR**

The courses which could be given in English are marked red.

Only a few courses can be given in English.

Numerics, Mechanics and Strength of Materials 3 and English-Language courses. (Perhaps Simulation in Sem. 5 too)

In addition to this students can make Projects.

Furthermore some Courses in English may be offered for all foreign students. We have an offer for international students (in the business department) with English lectures, which may also be visited by technical students. The link is:

<http://www.dhbw-loerrach.de/index.php?id=2792&L=1>

These lectures may also be offered in the future.

Furthermore we may offer in other technical departments a lecture in “Quality Management” in English.

## List of Modules Mechanical Engineering (KE) Lörrach Version 2.1.14

From Version 8/Br, 14.10.13				
<i>In blue: Courses may be offered</i>				
<b>1.Semester</b>				
Modul	SWS	PL	ECTS	Content
Machine Design 1	5	K	5	Lecture: 4SWS, Scetch 1SWS
Manufacturing Techniques	3			
Materials Science	3			
Mechanics and Strength of Materials 1	6	K	5	
Mathematics 1	5	K	5	Mathematics 4SWS; <b>Numerics 1SWS</b>
Computer Science	6	K	5	Basics of CS( 3SWS); Programming (3SWS)
<i>Scientific Work</i>	<i>1</i>			
<i>English</i>	<i>2</i>			
<b>2.Semester</b>				
Modul	SWS	PL	ECTS	
Machine Design 2	5	K,(T)	5	Lecture 4 SWS, CAD and Design Project 2 SWS
Manufacturing Techniques	3	K	5	Lecture
Materials Science	3	K	5	Lecture and Lab
Mechanics and Strength of Materials 2	6	K	5	Lecture TM:3SWS, FL:3SWS
Mathematics 2(+3)	5	K		Mathematics 4SWS, <b>Numerics 1SWS</b>
Electrical Engineering	5	K	5	
<i>English</i>	<i>2</i>			
<b>3.Semester</b>				
Modul	SWS	PL	ECTS	
Machine Design 3	5	K	5	Lecture 3 SWS, CAD and Design Project 2 SWS
<b>Mechanics and Strength of Materials 3</b>	<b>6</b>	<b>K</b>	<b>5</b>	
Mathematics (2+)3	5	K	10	Mathematics 4SWS; <b>Numerics 1SWS</b>
Thermodynamics	3	T		
Management	3	K		
Physics	5	K	5	
<i>English</i>	<i>2</i>			
<b>4.Semester</b>				
Modul	SWS	PL	ECTS	
Machine Design 4	5	K	5	Lecture 4 SWS, Design Project 1SWS
Thermodynamics	3	K	5	
Management	3		5	Projectmanagement
Drive and control technology	5	K	5	
Prozesses in Design and Manufacturing	5	K	5	Informatics 3SWS , Work Preparation and PPS 2SWS
Fluidmechanics	5	K	5	
<i>English</i>	<i>2</i>			
<i>Präsentation</i>	<i>2</i>			
<b>5.Semester</b>				
Modul	SWS	PL	ECTS	
Techniques in Design and Development	5	K	5	
Simulation	5	K	5	3SWS Lecture FEM, 2 SWS Lab
Machine Dynamics	5	K	5	with Lab
Vertiefung Antriebstechnik	5	K	5	Piston and turbo-machines
<b>Project 1</b>	<b>1</b>	<b>S</b>	<b>5</b>	
<i>English</i>	<i>2</i>			
<b>6.Semester</b>				
Modul	SWS	PL	ECTS	
Control Engineering	5	K	5	3SWS Lecture 2SWS Lab
Quality Management	5	K	5	3SWS Lecture 2SWS Lab
Selected Technologies	5	K	5	Welding 2SWS, Plastics Technology 3SWS
Operational Management	5	K	5	Working Security, Environment, HRM , Material flow
<b>Project 2</b>	<b>1</b>	<b>S</b>	<b>5</b>	
<i>Englisch</i>	<i>2</i>			

### Legend:

SWS=hors per week; PL=Kind of Test; ECTS= Credit-Points; K=Wriiten Examination; KE= Design Projectwork

T = Testat; S= Projectwork

# Neue Pläne Maschinenbau Konstruktion und Entwicklung DHBW Lörrach ab 2013

Version 8/Br, 14.10.13

*In Blau (kursiv): Freiwillige Veranstaltungen und Blended Learning*

1.Semester				
Modul	SWS	PL	ECTS	Inhalte etc.
Konstruktion 1	5	K	5	Vorlesung 4SWS, Konstruktionsskizze 1SWS
Fertigungstechnik	3			Vorlesung
Werkstoffe	3			Vorlesung
Technische Mechanik und Festigkeitslehre 1	6	K	5	Vorlesung TM:4SWS, FL:2SWS
Mathematik 1	5	K	5	Vorlesung 4SWS mit Numerik(1SWS)
Informatik	6	K	5	Grundlagen Rechner-technik (3SWS) und Programmieren (3SWS)
<i>Wissenschaftliches Arbeiten und Vert. WORD</i>	<i>1</i>			<i>Seminar</i>
<i>Vertiefung EXCEL</i>	<i>1</i>			
<i>Englisch</i>	<i>2</i>			
<i>Tutorials (evtl. auch als Vorkurs)</i>	<i>2</i>			
2.Semester				
Modul	SWS	PL	ECTS	
Konstruktion 2	5	K,(T)	5	Vorlesung 3 SWS, Entwurf mit CAD 2 SWS *)
Fertigungstechnik	3	K	5	Vorlesung
Werkstoffe	3	K	5	Vorlesung mit Laborbesuch
Technische Mechanik und Festigkeitslehre 2	6	K	5	Vorlesung TM:3SWS, FL:3SWS
Mathematik 2(+3)	5	K		Vorlesung 4SWS, Numerik 1SWS
Elektrotechnik	5	K	5	Vorlesung (evtl. mit Labor)
<i>CAD</i>	<i>2</i>			<i>Ergänzung CAD (Beratung)</i>
<i>Englisch</i>	<i>2</i>			
<i>Tutorials</i>	<i>2</i>			
3.Semester				
Modul	SWS	PL	ECTS	
Konstruktion 3	5	K	5	Vorlesung 3 SWS, Entwurf mit CAD 2 SWS *)
Technische Mechanik und Festigkeitslehre 3	6	K	5	Vorlesung TM:4SWS, FL:2SWS
Mathematik (2+3)	5	K	10	Vorlesung 4SWS mit Numerik(1SWS)
Thermodynamik	3	T		Vorlesung (mit Testleistung !)
Management	3	K		BWL
Angew. Kapitel der Physik	5	K	5	Akustik, Optik (3SWS) Ergänzungen Elektrotechnik (2SWS)
<i>CAD</i>	<i>2</i>			<i>Ergänzung CAD (Beratung)</i>
<i>Englisch</i>	<i>2</i>			
<i>Tutorials</i>	<i>2</i>			
4.Semester				
Modul	SWS	PL	ECTS	
Konstruktion 4	5	K	5	Konstruktion 4 SWS, Entwurf 1SWS **)
Thermodynamik	3	K	5	Vorlesung
Management	3		5	Projektmanagement
Antriebs- und Steuerungstechnik	5	K	5	Steuerungstechnik und el. Antriebe
Prozesse in Entwicklung und Produktion	5	K	5	Informatik 3 , Arbeitsvorbereitung und PPS
Fluidmechanik	5	K	5	(Physik 2)
<i>Konstruktionsentwurf (Beratung)</i>	<i>2</i>			<i>Beratung Konstruktionsentwurf</i>
<i>Englisch</i>	<i>2</i>			
<i>Präsentationstechnik</i>	<i>2</i>			
5.Semester				
Modul	SWS	PL	ECTS	
Konstruktions- und Entwicklungstechnik	5	K	5	Produktionsgerechtes Konstruieren, Konstruktionstechnik, Übertr.-E.
Simulationstechnik	5	K	5	z.B. 3SWS Vorlesung FEM, 2 SWS Labor
Maschinendynamik	5	K	5	evtl. mit Laborversuch
Vertiefung Antriebstechnik	5	K	5	Kolben und Strömungsmaschinen
Studienarbeit 1	1	S	5	Firmenarbeiten möglich
<i>Englisch</i>	<i>2</i>			
<i>CIM-Labor</i>	<i>2</i>			
<i>Produktionsmaschinen</i>	<i>2</i>			
6.Semester				
Modul	SWS	PL	ECTS	
Regelungs- und Automatisierungstechnik	5	K	5	3SWS Vorlesung 2SWS Labor(incl. Messtechnik, evtl Labor EL?)
Qualitätsmanagement	5	K	5	3SWS Vorlesung 2SWS Labor
Ausgewählte Technologien	5	K	5	Schweißtechnik 2SWS, Kunststofftechnik 3SWS
Betriebliches Management	5	K	5	Arbeits-sicherh./ Umweltsch., Personalf./ Arbeitsrecht, Materialfluss
Studienarbeit 2	1	S	5	Firmenarbeiten möglich
<i>Englisch</i>	<i>2</i>			
<i>Cim-Labor</i>	<i>2</i>			
<i>z.B. Refa, AdA</i>	<i>2</i>			

\*) Note: 70% Klausur, 30% Entwurf \*\*) Note 50% Klausur, 50% Entwurf

## Legende:

SWS=Semesterwochenstunden; PL=Prüfungsleistungen; ECTS= Credit-Points; K=Klausur; KE= Konstruktionsentwurf

T = Testat; S= Studienarbeit



# Erasmus+ Programme

## Key Action 1 – Mobility for learners and staff – Higher Education Student and Staff Mobility

### Inter-institutional<sup>1</sup> agreement 2014/2015-2020/2021<sup>2</sup> between programme countries

#### [Minimum requirements]<sup>3</sup>

The institutions named below agree to cooperate for the exchange of students and/or staff in the context of the Erasmus+ programme. They commit to respect the quality requirements of the Erasmus Charter for Higher Education in all aspects related to the organisation and management of the mobility, in particular the recognition of the credits awarded to students by the partner institution.

#### A. Information about higher education institutions

Name of the institution (and department, where relevant)	Erasmus code	Contact details <sup>4</sup> (email, phone)	Website (eg. of the course catalogue)
Istanbul University	TR ISTANBU03	Erasmus Institutional Coordinator <b>Assoc.Prof.Dr. Sevinç Hatipoğlu</b> <a href="mailto:intacrel@istanbul.edu.tr">intacrel@istanbul.edu.tr</a> Tel: +90 212 440 00 00/10242	<a href="http://www.istanbul.edu.tr/uaik/ABegitim/english/index.php">http://www.istanbul.edu.tr/uaik/ABegitim/english/index.php</a>  Lecture Catalogue: <a href="https://egitimdeyapilanma.istanbul.edu.tr/?dil=en">https://egitimdeyapilanma.istanbul.edu.tr/?dil=en</a>

<sup>1</sup> Inter-institutional agreements can be signed by two or more higher education Institutions

<sup>2</sup> Higher Education Institutions have to agree on the period of validity of this agreement

<sup>3</sup> Clauses may be added to this template agreement to better reflect the nature of the institutional partnership.

<sup>4</sup> Contact details to reach the senior officer in charge of this agreement and of its possible updates.

Istanbul University Faculty of Engineering, Mechanical Engineering Department	TR ISTANBU03	Faculty/Departmental Coordinator  Assist.Prof.Dr. Yunus Ziya ARSLAN  <a href="mailto:yzarslan@istanbul.edu.tr">yzarslan@istanbul.edu.tr</a>  <b>Postal Address:</b> İstanbul Üniversitesi Mühendislik Fakültesi Makina Mühendisliği Bölümü 34320 Avcılar İstanbul TURKEY  <b>Tel:</b> +90 212 4737070/17748	
DHBW Loerrach (Baden- Wuerttemberg Cooperative State University Loerrach), Germany	D LORRACH01	Britta Goertz Head International Office <a href="mailto:goertz@dhbw-loerrach.de">goertz@dhbw-loerrach.de</a> +49 (0) 7621 2071196	<a href="http://www.dhbw-loerrach.de/index.php?id=2796&amp;L=1">http://www.dhbw-loerrach.de/index.php?id=2796&amp;L=1</a>
		Head of Departement Mechanical Engineering Prof. Dr. Wilhelm Brix <a href="mailto:brix@dhbw-loerrach.de">brix@dhbw-loerrach.de</a> + 49 (0) 7621 2071142	

## B. Mobility numbers<sup>5</sup> per academic year

The partners commit to amend the table below in case of changes in the mobility data by no later than the end of January in the preceding academic year.

### Student Mobility (SMS)

FROM [Erasmus code of the sending institution]	TO [Erasmus code of the receiving institution]	Subject area code * [ISCED]	Subject area name *	Study cycle [short cycle, 1 <sup>st</sup> , 2 <sup>nd</sup> or 3 <sup>rd</sup> ] *	Number of student mobility periods	
					Student Mobility for Studies	Student Mobility for Traineeships *
TR ISTANBU03	D LORRACH01				3 undergraduate students each for 6 months	3 undergraduate students

<sup>5</sup> Mobility numbers can be given per sending/receiving institutions and per education field (optional\*:  
<http://www.uis.unesco.org/Education/Pages/international-standard-classification-of-education.aspx>)

D LORRACH01	TR ISTANBU03				3 undergraduate students each for 6 months	3 undergraduate students

[\*Optional: subject area code & name and study cycle are optional. Inter-institutional agreements are not compulsory for Student Mobility for Traineeships or Staff Mobility for Training. Institutions may agree to cooperate on the organisation of traineeship; in this case they should indicate the number of students that they intend to send to the partner country. Total duration in months/days of the student/staff mobility periods or average duration can be indicated if relevant.]

#### Staff Mobility (STT or STA)

FROM [Erasmus code of the sending institution]	TO [Erasmus code of the receiving institution]	Subject area code * [ISCED]	Subject area name *	Number of staff mobility periods	
				Staff Mobility for Teaching  [total number of days of teaching periods or average duration *]	Staff Mobility for Training *
TR ISTANBU03	D LORRACH01			Seven (7) days	
D LORRACH01	TR ISTANBU03			Seven (7) days	

### C. Recommended language skills

The sending institution, following agreement with the receiving institution, is responsible for providing support to its nominated candidates so that they can have the recommended language skills at the start of the study or teaching period:

Receiving institution [Erasmus code]	Optional: Subject area	Language of instruc- tion 1	Language of instruc- tion 2	Recommended language of instruction level <sup>6</sup>	
				Student Mobility for Studies  [Minimum recommended level: B1]	Staff Mobility for Teaching  [Minimum recommended level: B2]

<sup>6</sup> For an easier and consistent understanding of language requirements, use of the Common European Framework of Reference for Languages (CEFR) is recommended, see <http://europass.cedefop.europa.eu/en/resources/european-language-levels-cefr>

TR ISTANBU03		TR (For the terms 2014/2015 and 2015/2016)	EN (For the terms after 2016/2017)	B1	B2
D LORRACH01		DE (most lectures)	EN (some lectures)	B1	B2

For more details on the language of instruction recommendations, see the course catalogue of each institution *[Links provided on the first page]*.

#### D. Additional requirements

*[To be completed if necessary, other requirements may be added on academic or organisational aspects, e.g. the selection criteria for students and staff; measures for preparing, receiving and integrating mobile students and/or staff]*

*[Please specify whether the institutions have the infrastructure to welcome students and staff with disabilities.]*

#### TR ISTANBU 03

- The selection criteria for students and staff are regulated by the sending university; measures for preparing, receiving and integrating mobile students and/or staff are organised by the receiving institution.
- Erasmus Incoming Students have to choose courses from the department with which the agreement is existing, they can choose two courses from any faculties as long as the courses are not overlapping!
- For the implementation of STA/STT-mobilities, a letter of invitation – issued by a Istanbul University contact person – is required.

#### E. Calendar

1. Applications/information on nominated students must reach the receiving institution by:

Receiving institution [Erasmus code]	Autumn term* [month]	Spring term* [month]
TR ISTANBU03	June 15th	November 15th
D LORRACH01	June 15th	November 15th

*[\* to be adapted in case of a trimester system]*

### TRISTANBU 03

Information on the Application System is available at

<http://www.istanbul.edu.tr/uaik/ABegitim/indexeng.php>.

2. The receiving institution will send its decision within [6] weeks.
3. A Transcript of Records will be issued by the receiving institution no later than [5] weeks after the assessment period has finished at the receiving HEI. *[It should normally not exceed five weeks according to the Erasmus Charter for Higher Education guidelines]*
4. Termination of the agreement

The inter-institutional agreement may be amended by mutual agreement. The inter-institutional agreement may be terminated by either party. In the event of unilateral termination, a notice of at least one academic year should be given. In the event of such notice being given, all existing commitments to staff or students will be fulfilled. Neither the European Commission nor the National Agencies can be held responsible in case of a conflict.

## F. Information

### 1. Grading systems of the institutions

### TRISTANBU 03

**ECTS Credits:** Istanbul University uses the *European Credit Transfer and Accumulation System* (ECTS) which is a workload-based system for measuring and comparing study results. The student is awarded a certain number of ECTS credits for each course which reflects the workload necessary to successfully complete a course. Credits are awarded only when the student has fulfilled the course requirements, for example regular attendance. The credits are allocated by the individual departments in accordance with the standard workload determined by the respective study and examination regulations whereby one credit equals 30 hours of study. Please note that the Student Exchange Office refrains from prescribing a standard workload per semester.

**GRADES:** Istanbul University recommends the following grading equivalency table:

Cooresponding Grades in Numbers	Cooresponding I.U. Grades	ECTS Grades
4.00	AA	A
3.50	BA	B
3.00	BB	C
2.50	CB	D
2.00	CC	E
1.50	DC	-
1.00	DD	-
0.00	FF	FX
0.00	FD	F



-	G	-
-	M	-

## **2. Visa**

The sending and receiving institutions will provide assistance, when required, in securing visas for incoming and outbound mobile participants, according to the requirements of the Erasmus Charter for Higher Education.

Information and assistance can be provided by the following contact points and information sources:

<b>Institution</b> [Erasmus code]	<b>Contact details</b> (email, phone)	<b>Website for information</b>
TRISTANBU 03		<a href="http://www.istanbul.edu.tr/uaik/ABegitim/english/index.php">http://www.istanbul.edu.tr/uaik/ABegitim/english/index.php</a> and <a href="http://yabancilar.iem.gov.tr/">http://yabancilar.iem.gov.tr/</a>
D LORRACH01		<a href="http://konsolosluk.gov.tr/">http://konsolosluk.gov.tr/</a>

## **3. Insurance**

The sending and receiving institutions will provide assistance in obtaining insurance for incoming and outbound mobile participants, according to the requirements of the Erasmus Charter for Higher Education.

The receiving institution will inform mobile participants of cases in which insurance cover is not automatically provided. Information and assistance can be provided by the following contact points and information sources:

<b>Institution</b> [Erasmus code]	<b>Contact details</b> (email, phone)	<b>Website for information</b>
TRISTANBU 03		<a href="http://www.istanbul.edu.tr/uaik/ABegitim/english/index.php">http://www.istanbul.edu.tr/uaik/ABegitim/english/index.php</a>
D LORRACH01		<a href="http://www.dhbw-loerrach.de/index.php?id=2793&amp;L=1">http://www.dhbw-loerrach.de/index.php?id=2793&amp;L=1</a>



## **4. Housing**

The receiving institution will guide incoming mobile participants in finding accommodation, according to the requirements of the Erasmus Charter for Higher Education.

Information and assistance can be provided by the following persons and information sources:

Institution [Erasmus code]	Contact details (email, phone)	Website for information
TRISTANBU 03		<a href="http://www.istanbul.edu.tr/uaik/ABegitim/english/index.php">http://www.istanbul.edu.tr/uaik/ABegitim/english/index.php</a> and <a href="http://www.istanbul.edu.tr/avkampus/konukevi/konukevi.html">http://www.istanbul.edu.tr/avkampus/konukevi/konukevi.html</a>
D LORRACH01		<a href="http://www.dhbw-loerrach.de/index.php?id=2793&amp;L=1">http://www.dhbw-loerrach.de/index.php?id=2793&amp;L=1</a>

#### G. SIGNATURES OF THE INSTITUTIONS (legal representatives)

Institution [Erasmus code]	Name, function	Date	Signature <sup>7</sup>
TRISTANBU 03	Assoc.Prof.Dr. Sevinç Hatipoğlu Erasmus Institutional Coordinator	25.12.13	
D LORRACH01	Prof. Dr. Theodor Karl Sproll, President	19/12/13	

<sup>7</sup> Scanned signatures are accepted