DEPARTMENT OF COMPUTER SCIENCE
COURSE SYLLABUS

Course Details				
Code	**Academic Year**			**Semester**
MEC299	2			Fall
Title	**T**	**A**	**L**	**ECTS**
Introduction to Computer Science and Programming				2

Language	German					
Level	**Undergraduate**	**X**	**Graduate**		**Postgraduate**	
Department / Program	Mechatronics					
Forms of Teaching and Learning	Formal					
Course Type	**Compulsory**	**X**	**Elective**			
Objectives	After successfully completing this module, students are able to describe elementary concepts and methods of computer science. You have knowledge of imperative programming and basic knowledge of basic data structures. They are able to algorithmically convert problems into programs and use the programming languages C and C ++.					
Content	Type 1: Basics of metal and plastic processing Course content: Manual work Learning basic relationships in dealing with the materials metal and plastic by independently applying process forces and independent process control in the selected activities: • Scribing, filing, sawing, reaming, thread cutting, straightening, bending, working on the bench grinder, drilling, countersinking • Welding, soldering • Adhere • Heat treatment of tools and workpieces (soft annealing, diffusion annealing, normalizing, hardening and tempering) Course content: Mechanized work Learning the main mechanical elements of machine tools and the interrelationships for workpiece processing. The process forces during the execution of the selected activities are applied mechanically. The intern carries out most of the process control himself: • Turning, milling, grinding, drilling, countersinking • To bend Course content: Automated work Learning the basics of operating automated machine tools. Experience of the possibilities and limits of modern manufacturing technologies in the following selected activities: • Turning, milling, grinding, drilling, countersinking • Welding, soldering • Adhere Type 2: Production in general mechanical engineering and vehicle construction Course content: Manual work Learning basic relationships in dealing with the materials metal and plastic by independently applying process forces and independent process control in the selected activities:					

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Prerequisites	None
Coordinator	
Lecturer(s)	Dr.-Ing. Ali Can KAYA
Assistant(s)	Mustafa Hakan SANDIK, M.Sc.,
Work Placement	Internship of 30 working days.
Recommended or Required Reading	
Books / Lecture Notes	Script will be distributed digitally.
Other Sources	Technical drawing book, standards
Additional Course Material	
Documents	- Internship Regulations
Assignments	-None
Exams	-None
Course Composition	

Mathematics und Basic Sciences	5	%
Engineering	70	%
Engineering Design	10	%
Social Sciences	0	%

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Educational Sciences	0	%
Natural Sciences	5	%
Health Sciences	0	%
Expert Knowledge	10	%

Assessment

Activity	Count	Percentage (%)
Midterm Exam	0	0
Quiz	0	0
Assignments	1	20
Attendance	30	70
Recitations	0	0
Projects	0	0
Final Exam	1	10
	Total	**100**

ECTS Points and Work Load

Activity	Count	Duration	Work Load (Hours)
Lectures	0	0	
Self-Study	0	0	
Assignments	1	15	15
Presentation / Seminar Preparation	1	0	
Midterm Exam	0	0	
Recitations	0	0	
Laboratory	30	8	240
Projects	0	0	
Final Exam	1	5	5
		Total Work Load	**260**
		ECTS Points (Total Work Load / 28)	**2**

Learning Outcomes

1	Learning the processes within a production facility
2	Practical exercise of certain manufacturing processes
3	Repetition of theoretical knowledge regarding the manufacturing processes
4	Effective communication within the organization with other employees and departments

Weekly Content

1	Internship in workshop

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2	Internship in workshop
3	Internship in workshop
4	Internship in workshop
5	Internship in workshop
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

Contribution of Learning Outcomes to Program Objectives (1-5)

	P1	P2	P3	P4	P5	P6	P7
1	5	3					
2	3	2					
3	3	3					
4							

Contribution Level	1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High
http://bm.tau.edu.tr/learning-objectives-of-the-program	
Compiled by:	Mustafa Hakan SANDIK
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