

DEPARTMENT OF ENERGY SCIENCE AND TECHNOLOGY  
COURSE SYLLABUS

Course Details						
Code			Academic Year			Semester
NWI401			4			7
Title			T	A	L	ECTS
Scientific Study Methods			2	0	0	2
Language	German					
Level	Undergraduate	X	Graduate		Postgraduate	
Department / Program	Department of Energy Science and Technology (German)					
Forms of Teaching and Learning	Face to Face					
Course Type	Compulsory	X	Elective			
Objectives	To provide the student with the ability to analyze the problem/system with which he/she is dealing and to develop solution ideas considering theoretical knowledge. To provide a useful experience through a self study to take the first step to his/her new career which will start after graduation. The student will communicate his/her study efficiently, verbal and written, so he/she will learn to express himself/herself better.					
Content	i. To provide the student with the ability to analyze the problem/system with which he/she is dealing and to develop solution ideas considering theoretical knowledge. ii. To provide a useful experience through a self study to take the first step to his/her new career which will start after graduation. iii. The student will communicate his/her study efficiently, verbal and written, so he/she will learn to express himself/herself better.					
Prerequisites						
Coordinator						
Lecturer(s)						
Assistant(s)						
Work Placement	No					
Recommended or Required Reading						
Books / Lecture Notes						
Other Sources						
Additional Course Material						
Documents						
Assignments						
Exams						
Course Composition						
Mathematics und Basic Sciences					%	
Engineering	40				%	
Engineering Design	40				%	

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Social Sciences		%
Educational Sciences		%
Natural Sciences		%
Health Sciences		%
Expert Knowledge	20	%

Assessment

Activity	Count	Percentage (%)
Midterm Exam	1	40
Quiz	0	0
Assignments	0	0
Attendance	0	0
Recitations	0	0
Projects	0	0
Final Exam	1	60
Total		100

ECTS Points and Work Load

Activity	Count	Duration	Work Load (Hours)
Lectures	14	2	28
Self-Study	5	4	20
Assignments			
Presentation / Seminar Preparation	1	10	10
Midterm Exam	1	2	2
Recitations			
Laboratory			
Projects			
Final Exam	1	2	2
Total Work Load			62
ECTS Points (Total Work Load / Hours)			2

Learning Outcomes

1	Formulate and analyze a problem by examining the current status
2	Develop applicable suggestions and/or solution methods for the problem dealt with, considering theoretical knowledge.
3	Gain the ability to implement a solution method to an existing problem and will be able to evaluate the results.
4	Learn to express himself/herself by reporting and presenting the work.
5	Learn to defend the idea that underlines the results of the study.

Weekly Content

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1	Project work, literature search, presentations of exemplary studies from the methods of Materials science;						
Contribution of Learning Outcomes to Program Objectives (1-5)							
	P1	P2	P3	P4	P5	P6	P7
1	5	5	5	5	5	5	5
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
Contribution Level		1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High					
Compiled by:							
Date of Compilation:							