

VI. Program Course List

University Requirements (14 Credits)

Course Number	Course Name	Credits
180007x	University Requirement I	2
180007x	University Requirement II	2
180007x	University Requirement III	2
1800002	Low-Intermediate English	2
1800003	Intermediate English	2
1800004	Upper-Intermediate English	2
1800010	Advanced English	2
	Total	14

Table 1: University Requirements

University Requirement I, II, III can be chosen from the University Requirement List which is updated every year.

Because the Dual studies program is based on the German Dual studies model, students are advised to choose **1800005 German I** and **1800006 German II** as University Requirement courses.

College Requirements (6 Credits)

Course Number	Course Name	Credits
1800012	Communication Skills	2
1800001	Basics of Business Administration	2
1800011	Entrepreneurship	2
	Total	6

Table 2: College Requirements

Specialization (Mandatory) Requirements (117 Credits)

Course Number	Course Name	Credits
1820113	Mathematics for IT	2
1820101	Introduction to Computer Science	2
1820111	Introduction to Computer Science Lab	1
1820102	Fundamentals of Programming	2
1820112	Fundamentals of Programming Lab	1
1820190	Practical Period I	5
1820205	Object Oriented Programming	2
1820142	Linear Algebra for IT	2
1820203	Data Structures and Algorithms I	3
1820213	Data Structures and Algorithms I Lab	1
1820162	Web-Engineering	2
1820191	Practical Period II	5
1820208	Data Structures and Algorithms II	2
1820218	Data Structures and Algorithms II Lab	1
1820210	Operating Systems	2
1820220	Operating Systems Lab	1
1820109	Software Engineering	2
1820119	Software Engineering Lab	1
1820211	Project Management	2
1820290	Practical Period III	5
1820201	Mathematics for Data Sciences	2
1820216	Automata Theory and Compilers	2
1820303	Database I	2
1820333	Database I Lab	1
1820281	Introduction to Networks	2
1820282	Introduction to Networks Lab	1
1820291	Practical Period IV	5
1820311	Computer Organization & Assembly	2

1820341	Computer Organization & Assembly Lab	1
1820312	Distributed and Cloud Computing	2
1820322	Distributed and Cloud Computing lab	1
1820313	Data Security & Data Privacy	2
1820323	Data Security Lab	1
1820314	Mobile Computing	2
1820324	Mobile Computing Lab	1
1820390	Practical Period V	5
1820321	Artificial Intelligence	2
1820331	Artificial Intelligence lab	1
1820307	Database II	2
1820317	Database II Lab	1
1820206	Introduction to Research Methods	1
1820391	Practical Period VI	5
1820411	Human Computer Interaction	2
1820421	Human Computer Interaction Lab	1
1820412	Machine Learning & Data Mining	3
1820422	Machine Learning & Data Mining lab	1
1820480	Intro. to Graduation Project I	3
1820490	Practical Period. VII = Graduation Project I	5
1820461	Advanced Software Engineering	2
1820471	Advanced Software Engineering lab	1
1820407	Special Topics	3
1820481	Intro. to Graduation Project II	3
1820491	Practical Period. VIII = Graduation Project II	5
	Total	117

Table 3: Specification Requirements

Specification Elective Course List (3 Credits)

Students must choose one course out of the following courses

Course Number	Course Name	Credits
1820260	Serious Gaming Fundamentals	3
1820450	Automata Theory	3
1820451	Secure Software Development	3
	Total	3

Table 4: Elective Courses

DSIT Total Credit Hours

	Credits
University Requirements	14
College Requirements	6
Specification Requirements	117
Specification Elective	3
Total	140

Table 5: Total Credit Hours