Course Structure Diagram with Course Credits

The undergraduate program in Software Engineering consists of 51 courses with 255 ECTS credits in total.

- There are at least 5 courses in each semester, excluding common compulsory courses and elective courses.
- In each program, there are common compulsory courses identified by the Higher Education Council of Turkey (YÖK) and other common courses determined by the University Senate.
- Beginning from the junior (third) year, elective courses are anticipated in each semester.
- 25% of the elective courses are taken from other faculties.
- There are at least 10 elective courses in each undergraduate program.

COURSES OFFERED THROUGHOUT THE UNIVERSITY		
Common University Courses	Campus Orientation	The students are registered to this course at the beginning of the first semester of the freshman year to familiarize them with the campus life at NEU.
	Career Planning	The students are registered to this course at the beginning of their second semester of the freshman year to help them prepare for work life after graduation.
	Cyprus History and Culture	This course is taken by students in their freshmen year and it aims to help them to familiarize them with the local history and culture.
Common Compulsory Courses (YÖK Courses)	Turkish Language I-II (Turkish for Foreigners I & II to replace this course for international students) Principles of Atatürk and History of Revolution I-II	These are the compulsory courses which are required to be offered in all of the associate and undergraduate programs in Turkey according to the Higher Education Legislation.
	Information/Software Technologies	This course is anticipated in all the associate and undergraduate programs in Turkey in order to make the students gain the qualifications related to basic Information/Software technologies.
	Foreign Language (ENGLISH) I & II	This course is offered in the first and second semester and conducted according to the program curriculum of each faculty.

1. Year Fall Semester

COURSE CODE	PREREQUISITE	COURSE NAME	THEORY	APPLICATION/ LABORATORY	LOCAL CREDITS	ECTS
KİM101	-	G. Chemistry	4	2	4	5
İNG101	-	English I	3	0	3	3
FİZ101	-	G.Physics I	4	2	4	5
MAT101	-	Mathematics I	4	0	4	5
MAT113	-	Linear Algebra	3	0	3	5
MOD102	-	Programming and Problem Solving	4	2	4	5
KAM100	-	Campus Orientation	2	0	0	2
Toplam						30

1.Year Spring Semester

COURSE CODE	PREREQUISITE	COURSE NAME	THEORY	APPLICATION/ LABORATORY	LOCAL CREDITS	ECTS
ECC108	ECC102	Object-Oriented Programming	3	2	3	5
ENG102	ENG101	English II	3	0	3	3
MTH102	MTH101	Mathematics II	4	0	4	6
ECC104	-	Discrete Structures	3	0	3	6
PHY102	PHY101	G. Physics II	4	2	4	6
CAR100	-	Career Planning	2	0	0	2
CTC100	-	Cyprus History and Culture	2	0	2	2
						30

2. Year Fall Semester

COURSE CODE	PREREQUISITE	COURSE NAME	THEORY	APPLICATION/ LABORATORY	LOCAL CREDITS	ECTS
ECC201	ECC102	Data Structures and Algorithms	4	2	4	6

ECC001	ECC104	Digital Logic	4	2	4	6
ENG201	ENG102	English Communication Skills	3	0	3	3
MTH251	MTH113	Probability and Statistics	3	0	3	6
ECC003	-	Software Engineering	3	0	3	7
YIT101 TUR101	-	Turkish for Foreign Students I Turkish for Turkish Speaking Students I	2	0	2	2
Toplam						30

2.Year Spring Semester

COURSE CODE	PREREQUISITE	COURSE NAME	THEORY	APPLICATION/ LABORATORY	LOCAL CREDITS	ECTS
ECC202	ECC201	Database Management Systems	4	2	4	6
ECC203	ECC001	Computer Organisation and Arch.	3	2	3	5
ECC427	-	Introduction to Management	3	0	3	5
SWE202	ECC003	Software Construction	3	2	3	5
SWE234	-	Human Computer Interaction	2	2	2	5
YIT102 TUR102	YIT101/TUR101	Turkish for Foreign Students II Turkish for Turkish Speaking Students I	2	0	2	2
SWE299	-	Summer Training I	0	0	0	7.5
Toplam						35.5

3.Year Fall Semester

COURSE	PREREQUISITE	COURSE NAME	THEORY	APPLICATION/	LOCAL	ECTS

CODE				LABORATORY	CREDITS	
ECC302	ECC202	Operating Systems	3	0	3	6
ECC004	ECC108	Programming Languages I	3	2	3	6
SWE301	SWE202	Software Design and Architecture	4	2	4	6
ECC311	ECC427	Management Information Systems	4	0	4	6
ECC439	-	Occupational Health and Safety I	2	0	2	4
AİT104	AİT103	Principles of Atatürk and the History of Turkish Revolution I	2	0	2	2
Toplam						30

3.Year Spring Semester

COURSE CODE	PREREQUISITE	COURSE NAME	THEORY	APPLICATION/ LABORATORY	LOCAL CREDITS	ECTS
ECC005	ECC004	Internet Computing	3	2	3	5
ECC303	ECC001	Data Communication and Networking	4	2	4	6
SWE302	SWE301	Software Quality Assurance and Testing	4	2	4	6
SWE304	SWE301	Software Requirement Analysis	3	2	3	5
ECC440	ECC439	Occupational Health and Safety II	2	0	2	4
AİT104	AİT103	Principles of Atatürk and the History of Turkish Revolution I	2	0	2	2
SWE399	SWE299	Summer Training II	0	0	0	7.5
Toplam						35.5

4.Year Fall Semester

COURSE CODE	PREREQUISITE	COURSE NAME	THEORY	APPLICATION/ LABORATORY	LOCAL CREDITS	ECTS
ECC430	ECC303	Principles of Information Security	3	2	3	6
SWE401	-	Software Project Management	2	0	2	4
SWE491	-	Graduation Project I	2	2	2	5
TE		Technical Elective	3	0	3	5
TE		Technical Elective	3	0	3	5
TE		Technical Elective	3	0	3	5
Toplam						30

4.Year Spring Semester

COURSE CODE	PREREQUISITE	COURSE NAME	THEORY	APPLICATION/ LABORATORY	LOCAL CREDITS	ECTS
ECC429	-	Engineering Ethics	3	0	3	6
SWE492	SWE491	Graduation Project I	4	2	4	9
ECC426	-	Introduction to Economics	3	0	3	5
TE	-	Technical Elective	3	0	3	5
TE	-	Technical Elective	3	0	3	5
Toplam						30

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COURSE CODE	PREREQUISITE	COURSE NAME	THEORY	APPLICATION/ LABORATORY	LOCAL CREDITS	ECTS
ECC431	-	e-Commerce	3	2	3	5
ECC412	ECC202	Database Applications	3	2	3	5
ECC002	-	System Simulation	3	0	3	5
ECC006	-	Web Design and Programming	3	0	3	5
ECC007	-	Multimedia Systems	3	0	3	5

SWE410	-	Green IoT in Software Engineering	3	0	3	5
ECC404	-	Neural Networks	3	0	3	5
ECC005	-	Internet Programming	3	0	3	5
ECC406	-	System Programming	3	2	3	5
ECC417	-	Mobile Programming	3	2	3	5
ECC415	-	Decision Making	3	2	3	5
ECC435	-	Cyber Security	3	2	3	5
ECC408	ECC108	Advance Oject-Oriented Programming	3	2	3	5
ECC409	ECC108	Oject-Oriented Programming II	3	2	3	5
ECC442	-	Intrduction to Machine Learning	3	2	3	5

NON-TECHNICAL ELECTIVES						
COURSE CODE	PREREQUISITE	COURSE NAME	THEORY	APPLICATION/ LABORATORY	LOCAL CREDITS	ECTS
CTC101	-	Cyprus History and Culture	2	0	2	2