

Northern Technical University

الجامعة التقنية الشمالية



First Cycle – Bachelor's degree (B.Sc.) – Surveying Engineering

بكالوريوس هندسة تقنيات الهندسة المساحة

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1. Overview

This catalogue is about the courses (modules) given by the program of Surveying Engineering to gain the Bachelor of Science degree. The program delivers (40) Modules with (6000) total student workload hours and 240 total ECTS. The module delivery is based on the Bologna Process.

نظرة عامة

يتناول هذا الدليل المواد الدراسية التي يقدمها برنامج هندسة تقنيات المساحة للحصول على درجة بكالوريوس العلوم هندسة تقنيات المساحة. يقدم البرنامج (٤٠) مادة دراسية، مع (٦٠٠٠) إجمالي ساعات حمل الطالب و ٢٤٠ إجمالي وحدات أوروبية. يعتمد تقديم المواد الدراسية على عملية بولونيا.

2. Undergraduate Courses 2023-2024

Module 1

Code	Course/Module Title	ECTS	Semester
SUE100	Surveying Fundamentals	9	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	6	126	99
Description			
This section includes a description of the module, 100-150 words			

Module 2

Code	Course/Module Title	ECTS	Semester
TECK104	Workshop	4	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
-	6	94	6
Description			
This section includes a description of the module, 100-150 words			

Module 3

Code	Course/Module Title	ECTS	Semester
SUE102	of Material and Geology Rocks	6	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)

2	2	66	84
Description			
This section includes a description of the module, 100-150 words			

Module 4

Code	Course/Module Title	ECTS	Semester
NTU102	Fundamental Computer	6	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
1	3	66	84
Description			
This section includes a description of the module, 100-150 words			

Module 5

Code	Course/Module Title	ECTS	Semester
NTU101	English Language	5	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2		64	61
Description			
This section includes a description of the module, 100-150 words			

Module 6

Code	Course/Module Title	ECTS	Semester
SUE101	Surveying Plane	9	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	6	126	99
Description			
This section includes a description of the module, 100-150 words			

Module7

Code	Course/Module Title	ECTS	Semester
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SUE103	Geological Engineering	6	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	2	66	84
Description			
This section includes a description of the module, 100-150 words			

Module8

Code	Course/Module Title	ECTS	Semester
TECK103	Engineering Drawing	6	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	69
Description			
This section includes a description of the module, 100-150 words			

Module 9

Code	Course/Module Title	ECTS	Semester
TECK102	of calculus Principles	6	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	2	66	84
Description			
This section includes a description of the module, 100-150 words			

Module 10

Code	Course/Module Title	ECTS	Semester
NTU100	democracy & Human Right	3	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	--	34	42
Description			
This section includes a description of the module, 100-150 words			

Module 11

Code	Course/Module Title	ECTS	Semester
SUE200	Survey Methods	6	3
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	6	126	99
Description			
This section includes a description of the module, 100-150 words			

Module 12

Code	Course/Module Title	ECTS	Semester
TECK201	equations differential	6	3
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	2	66	84
Description			
This section includes a description of the module, 100-150 words			

Module13

Code	Course/Module Title	ECTS	Semester
SUE203	Engineering Surveying	6	3
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	4	96	54
Description			
This section includes a description of the module, 100-150 words			

Module 14

Code	Course/Module Title	ECTS	Semester
SUE202	principle of Photogrammetry	6	3
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	69
Description			
This section includes a description of the module, 100-150 words			

Module 15

Code	Course/Module Title	ECTS	Semester
TECK203	Physics	3	3
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
1	2	48	27
Description			
This section includes a description of the module, 100-150 words			

Module 16

Code	Course/Module Title	ECTS	Semester
SUE201	Control Surveys	9	4
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	6	126	99
Description			
This section includes a description of the module, 100-150 words			

Module17

Code	Course/Module Title	ECTS	Semester
SUE207	Digital Photogrammetry	6	4
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	69
Description			
This section includes a description of the module, 100-150 words			

Module18

Code	Course/Module Title	ECTS	Semester
SUE206	Cartography	6	4
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	69
Description			

This section includes a description of the module, 100-150 words

Module 19

Code	Course/Module Title	ECTS	Semester
TECK102	Statistic Engineering	4	4
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	2	66	34
Description			
This section includes a description of the module, 100-150 words			

Module 20

Code	Course/Module Title	ECTS	Semester
SUE204	Principle of civil Engineering	5	4
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	44
Description			
This section includes a description of the module, 100-150 words			

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Module 21

Code	Course/Module Title	ECTS	Semester
SUE300	Dijital Maps	6	5
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	69
Description			
This section includes a description of the module, 100-150 words			

Module 22

Code	Course/Module Title	ECTS	Semester
TECK300	Engineering and Numerical Analysis	6	5
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)

3	2	81	69
Description			
This section includes a description of the module, 100-150 words			

Module 23

Code	Course/Module Title	ECTS	Semester
SUE304	Cadastral Surveying	6	5
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	96
Description			
This section includes a description of the module, 100-150 words			

Module 24

Code	Course/Module Title	ECTS	Semester
SUE305	Programming with Python	6	5
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	69
Description			
This section includes a description of the module, 100-150 words			

Module 25

Code	Course/Module Title	ECTS	Semester
SUE301	Theory of the error and Adjustments	6	5
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	2	66	84
Description			
This section includes a description of the module, 100-150 words			

Module 26

Code	Course/Module Title	ECTS	Semester
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SUE303	and Design Transportation Engineering	6	6
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
1	3	66	84
Description			
This section includes a description of the module, 100-150 words			

Module27

Code	Course/Module Title	ECTS	Semester
SUE308	Image processing and Intelligent systems	6	6
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	69
Description			
This section includes a description of the module, 100-150 words			

Module28

Code	Course/Module Title	ECTS	Semester
SUE306	Geographic information systems	6	6
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	69
Description			
This section includes a description of the module, 100-150 words			

Module 29

Code	Course/Module Title	ECTS	Semester
SUE302	Quantitative Surveying specification	6	6
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	2	66	84
Description			

This section includes a description of the module, 100-150 words

Module 30

Code	Course/Module Title	ECTS	Semester
SUE407	Applications of Programing	6	6
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	2	66	84
Description			
This section includes a description of the module, 100-150 words			

Module 31

Code	Course/Module Title	ECTS	Semester
TECK401	Elementary Gradation Project	4	7
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
-	4	62	38
Description			
This section includes a description of the module, 100-150 words			

Module 32

Code	Course/Module Title	ECTS	Semester
SUE404	Instruments Calibiration	6	7
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	69
Description			
This section includes a description of the module, 100-150 words			

Module33

Code	Course/Module Title	ECTS	Semester
SUE403	Geodetic survey	7	7
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	94

Description
This section includes a description of the module, 100-150 words

Module 34

Module 51			
Code	Course/Module Title	ECTS	Semester
SUE402	optical Remote Sensing	7	7
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	94
Description			
This section includes a description of the module, 100-150 words			

Module 35

Module 55			
Code	Course/Module Title	ECTS	Semester
TECK400	project Engineering management	6	7
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	69
Description			
This section includes a description of the module, 100-150 words			

Module 36

Module 56			
Code	Course/Module Title	ECTS	Semester
TECK403	final Gradation project	4	8
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
-	4	62	38
Description			
This section includes a description of the module, 100-150 words			

Module 37

Code	Course/Module Title	ECTS	Semester
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SUE401	Global Nivigation satalite system	6	8
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	69
Description			
This section includes a description of the module, 100-150 words			

Module38

Code	Course/Module Title	ECTS	Semester
SUE405	Surveying Apparatus Maintains	6	8
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	69
Description			
This section includes a description of the module, 100-150 words			

Module 39

Code	Course/Module Title	ECTS	Semester
SUE406	radar Remotsensing	7	8
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	94
Description			
This section includes a description of the module, 100-150 words			

Module 40

Code	Course/Module Title	ECTS	Semester
SUE400	Town Planning & Trafic	7	8
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	3	81	94
Description			
This section includes a description of the module, 100-150 words			

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