

Discrete Mathematics

Syllabus

Course Lecturer: Ms. Togzhan Nurtayeva

Course Language: English

Lecture Hours: Monday 9.00 – 11.00, Wednesday 9.00 - 10.00

Contact Email: togzhan.nurtayeva@tiu.edu.iq

Office: Main Building, room #317

Office Hours: Wednesday 10.00 -12.00

Course Book: Discrete mathematics and its applications, Kenneth H. Rosen. — 7th edition.

[http://cslabcms.nju.edu.cn/problem_solving/images/3/3e/Discrete Mathematics and Its Applications %287th Edition%29.pdf](http://cslabcms.nju.edu.cn/problem_solving/images/3/3e/Discrete_Mathematics_and_Its_Applications_%287th_Edition%29.pdf)

Class Rules and Student's Obligation:

- Students have an obligation to arrive on time and remain in the classroom for the duration of scheduled classes and activities.
- Students have an obligation to write, homework, quizzes and final examinations at the times scheduled by the teacher and university.
- Students have an obligation to show respectful behavior and appropriate classroom deportment. Should a student be disruptive and/or disrespectful, the teacher has the right to exclude the disruptive student from learning activities (classes) and may refer the case to the Director of Student Services under the Student Code of Conduct.
- Mobile Phones are not allowed in the classroom.
- Should a student leave the classroom during lecture hours, he/she will be marked absent automatically for that hour.

Course Content:

04.10.2022-13.10.2022	Intro to Algorithms and Pseudo Code <ul style="list-style-type: none">- Searching- Sorting- Optimization- Recursive- Big-O Notation
16.10.2022-20.10.2022	Cartesian Products and Ordered Pairs
23.10.2022 – 03.11.2022	Relations
06.11.2022 – 10.11.2022	Revision Week
12.11.2022 – 19.11.2022	MIDTERM
20.11.2022 – 01.12.2022	Proofs (direct, by case, induction, contradiction)
4.12.2022 – 8.12.2022	Intro to Graph Theory <ul style="list-style-type: none">- Types- Applications
11.12.2022 – 15.12.2022	Trees / Dijkstra's, Kruskal's and Prim's Algorithms
18.12.2022 – 22.12.2022	Intro to Propositional Logic / Truth Tables / Logic Gates
25.12.2022 – 29.12.2022	Conditionals and Negation
01.01.2023 – 05.01.2023	Revision Week
07.01.2023 – 21.01.2023	FINALS

Signature: 