

MTH 3033 – COURSE INFORMATION

Fall 2022

Instructor:	Prof. Youngjoon Hong	Time:	(Mon) 3pm, (Wed) 4:30pm
Email:	hongyj@skku.edu	Place:	31316

Professor's office:: 51354

Prerequisite: Calculus I and II, Linear Algebra

Homework: There will be 6–8 homework assignments during the semester.

Grading Policy: There will be homework and final project with an oral presentation. The total points for this class are distributed as follows:

- Homework: 50%
- Final project and presentation: 30%
- Midterm: 10%
- Attendance and participation: 10%

Missing a presentation is permitted only for the most compelling reasons. Except in extraordinary situations, permission should be obtained in advance from the instructor to miss an exam; otherwise you will be awarded zero points.

If you believe a problem on a homework or exam has been graded incorrectly, or that your score was not correctly recorded, you must bring this to the attention of the instructor within **14 calendar days** of the date of the exam or homework, and before the date of the final exam. Grading complaints not initiated within this period of time will not be considered.

Course Outline: Introduction to Python programming. Modeling, problem solving, and visualization. Part1: Approximation, Taylor series, Loops, Fibonacci sequences, integration, root finding, floating point numbers, interpolation, least squares. Part2: Pytorch programming, machine learning basics, linear neural networks for regression, classification, MLP, CNN.

Expectations and Policies

When you come to class:

- Please be on time.
 - Please pay attention.
 - Don't sleep, read the newspaper, check email, etc...
 - Please turn off mobile phones.
 - Please be courteous to other students and the instructor!
 - Abide by university statutes, and all applicable local, state, and federal laws.
- Turn in assignments on time. (**The instructor reserves the right not to accept late assignments**).

- The instructor will make special arrangements for students with documented learning disabilities and will try to make accommodations for other unforeseen circumstances, e.g. illness, personal/family crises, etc. in a way that is fair to all students enrolled in the class. Please contact the instructor **EARLY** regarding special circumstances.

Academic Integrity Policy: As an academic community, SKKU is committed to providing an environment in which research, learning, and scholarship can flourish and in which all endeavors are guided by academic and professional integrity. All members of the campus community - students, staff, faculty, and administrators - share the responsibility of insuring that these standards are upheld so that such an environment exists. Instances of academic misconduct by students will be handled pursuant to the Student Disciplinary Policy.

Religious Holidays: Students who wish to observe religious holidays shall notify the faculty member by the tenth day of the semester of the date when they will be absent unless the religious holiday is observed on or before the tenth day of the semester. In such cases, the student shall notify the faculty member at least five days in advance of the date when he/she will be absent. The faculty member shall make every reasonable effort to honor the request, not penalize the student for missing the class, and if an examination or project is due during the absence, give the student an exam or assignment equivalent to the one completed by those students in attendance. If the student feels aggrieved, he/she may request remedy through the campus grievance procedure.

Grievance Procedures: SKKU is committed to the most fundamental principles of academic freedom, equality of opportunity, and human dignity involving students and employees. Freedom from discrimination is a foundation for all decision making at SKKU. Students are encouraged to study the University's "Nondiscrimination Statement". Students are also urged to read the document "Public Formal Grievance Procedures". Information on these policies and procedures is available on the University web pages of the Office of Access and Equity.

Note: This syllabus is subject to change based on the needs of the class