

FIZ 272E – Computational Physics

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DAYS and HOURS:

Please visit http://www.sis.itu.edu.tr/tr/ders_programlari/LSprogramlar/prg.php?fb=BIL

OFFICE HOUR:

Please send an e-mail to arrange a personal visit. Feel free to visit my office for quick questions.

TOPICS:

Performance improvement in codes, matrix calculations, basic Monte Carlo applications, interpolation and curve fitting, numerical integration, numerical solutions of initial value problems, fundamentals of finite differences method.

Grading and Notes

Quizzes	:20%
Midterm I	:20%
Midterm II	:20%
Final	:40%

QUIZZES:

The course will be exercise-based. Therefore your attendance will be regarded as your quiz grade. The attendance will be taken at the beginning of the first hour.

MIDTERM EXAM:

There will be two midterm exams.

REFERENCES:

Numerical Recipes, William H. Press, Saul A. Teukolsky, William T. Vetterling and Brian P. Flannery. Cambridge University Press 2007

- *Numerical Analysis*, R.L. Burden, J.D. Faires, Brook/Cole Publishing Co. (1997)

- *Computational Physics*, R.H. Landau, M.J.P. Mejia, John Wiley & Sons, Inc. (1997)

OTHER:

- The students are **required** to check the **NINOVA** system on a daily basis. All the announcements made via NINOVA will be considered as read and understood by the students.