Fall 2020

CS 101-013: Introduction to Programming for Engineers

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CS 101
Introduction to Programming for Engineers

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Textbook: CS 101: Computer Programming and Problem Solving
This is an on-line book. Subscription instructions:
1. Sign in or create an account at learn.zybooks.com
2. Enter zyBook code: NJITCS101RutowskiFall2020
3. Subscribe

Grading: Programming projects and other assignments will be posted on canvas Midterm and final exams will be replaced by projects and assignments.

Final grade will be computed as:

Programs 30%
Assignments 30%
Final Project 30%
Attendance/Participation 10%

Topics:
The course will introduce students to the application of computing in engineering. The majority of the course will teach the basic concepts of imperative programming using the MATLAB programming language. We will also have an introduction to Python and C++. The main topics will be:
1. Input/output
2. Translating equations into MATLAB
   arithmetic operators
   calling functions
   plotting
3. Sequence of control flow
4. Selection statements
   relational operators
   logical operators
5. Iteration statements
6. Writing functions
   parameter passing
   local variables
7. Introduction to Python
8. Introduction to C++