Fall 2020

CS 101-015: Introduction to Programming for Engineers

Wallace Rutkowski

Follow this and additional works at: https://digitalcommons.njit.edu/cs-syllabi

Recommended Citation
https://digitalcommons.njit.edu/cs-syllabi/191

This Syllabus is brought to you for free and open access by the NJIT Syllabi at Digital Commons @ NJIT. It has been accepted for inclusion in Computer Science Syllabi by an authorized administrator of Digital Commons @ NJIT. For more information, please contact digitalcommons@njit.edu.
CS 101
Introduction to Programming for Engineers

Instructor: Wallace Rutkowski
email: wallace.rutkowski@njit.edu
office: GITC 4413
phone: 973-596-5483

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:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programs</td>
<td>30%</td>
</tr>
<tr>
<td>Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Final Project</td>
<td>30%</td>
</tr>
<tr>
<td>Attendance/Participation</td>
<td>10%</td>
</tr>
</tbody>
</table>

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++