

# ENGR 0012 – Spring 2019 Schedule

| Week # | Date         | What You Will Learn  | HW Due   | Quizzes |
|--------|--------------|--|--|---------|
| 1      | 01/08        | <i>(Review while loops, for loops, and switch-case from your ENGR 11 textbook/notes before class)</i> <ul style="list-style-type: none"> <li>Algorithms/flowcharts</li> <li>While loops, for loops</li> <li>Branching (if statements, switch-case)</li> </ul>  |  |         |
|        | 01/10<br>(W) |  | Complete CATME survey  |         |
| 2      | 01/15<br>(P) | <i>(Read Sections 4.1-4.6 before class)</i> <ul style="list-style-type: none"> <li>MATLAB Demo</li> <li>Using Matlab as a calculator</li> <li>Using variables</li> <li>Introduction to MATLAB commands</li> <li>Introduction to arrays</li> </ul>  | HW 1 due   |         |
|        | 01/17<br>(T) |  | Writing Assignment: Topic/Brief Proposal (due 01/18)                               | Quiz 1  |
| 3      | 01/22<br>(W) | <i>(Read Sections 4.6-4.10 before class, as well as additional sections on looping and branching, if needed)</i> <ul style="list-style-type: none"> <li>Review arrays</li> <li>Array operations</li> <li>Entering external data</li> <li>I/O commands</li> <li>M-files</li> <li>Looping and branching notation: for loops, while loops, switch-case</li> </ul> | HW 2 due   |         |
|        | 01/24        |  | Writing Assignment: Full/Revised Proposal (due 01/28)                              | Quiz 2  |
| 4      | 01/29        | <i>(Read Sections 4.11, 4.12.8 before class)</i> <ul style="list-style-type: none"> <li>Intro to modular design (functions)</li> <li>Function calls</li> <li>Random numbers (rng('shuffle'))</li> <li>Images</li> <li>Matlab applications: Use of matrices to solve equations</li> <li>Matlab applications: Solving linear equations</li> </ul>                | HW 3 due   |         |
|        | 01/31<br>(W) |  |  | Quiz 3  |
| 5      | 02/05        | <i>(Read Sections 4.12-4.13 before class)</i> <ul style="list-style-type: none"> <li>Matlab applications: Statistical operations, histograms (histogram)</li> <li>Matlab applications: Plotting, subplots (handles)</li> <li>Menu</li> <li>Matlab applications: Introduction to curve fitting</li> </ul>   | HW 4 due   |         |
|        | 02/07        |  | Writing Assignment: Revise Proposal – Abstract, Annotated Bibliography (due 02/08) | Quiz 4  |
| 6      | 02/12<br>(W) | <i>(Read Sections 4.14 before class)</i> <ul style="list-style-type: none"> <li>Matlab applications: Estimation, Linear regression, Error analysis</li> <li>Matlab applications: Loglog and semilog</li> <li>Matlab applications: Polynomial curve fitting</li> </ul>  | HW 5 due   |         |
|        | 02/14        |  |  | Quiz 5  |
| 7      | 02/19        | <i>(Review all covered sections before class)</i> <ul style="list-style-type: none"> <li>Review</li> </ul>   | HW 6 due<br>Writing Assignment: Annotated Outline (due 02/19)                      |         |
|        | 02/21<br>(W) |  |  | Quiz 6  |
| 8      | 02/26        | No class – Written midterm (evening)<br><b>7pm-9pm, location TBD</b>   |  |         |
|        | 02/28        | Computer midterm   | <b>Project 1 due</b>   |         |

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|    |              |  |  |         |
|----|--------------|--|--|---------|
|    |              |  |  |         |
| 9  | 03/05<br>(P) | (Read Sections 5.1-5.2 before class)   |  |         |
|    | 03/07<br>(T) | <ul style="list-style-type: none"> <li>Getting started with C</li> <li>Data types</li> <li>I/O commands (scanf, printf)</li> <li>Arrays</li> </ul> | Teamwork 5: Pre-Work completed<br><br>Writing Assignment: Conference Paper (due 03/09) |         |
| 10 | 03/12        | SPRING BREAK – no class  |  |         |
|    | 03/14        |  |  |         |
| 11 | 03/19        | (Read Sections 5.3-5.4 before class)   | HW 7 due   |         |
|    | 03/21<br>(W) | <ul style="list-style-type: none"> <li>Math operations</li> <li>Looping and branching</li> </ul>   |  | Quiz 7  |
| 12 | 03/26        | (Read Sections 5.5 before class)   | HW 8 due   |         |
|    | 03/28        | <ul style="list-style-type: none"> <li>Looping and branching</li> <li>File I/O</li> <li>Finding end of file</li> </ul>                             |  | Quiz 8  |
| 13 | 04/02        | (Read Sections 5.6 before class)   | Writing Assignment: Revised Conference Paper due (due 04/02)<br><br>HW 9 due           |         |
|    | 04/04        | Review functions   |  | Quiz 9  |
|    | 04/06        | First-Year Conference (all day) – mandatory to attend  |  |         |
| 14 | 04/09<br>(P) | (Review all covered sections before class)   | HW 10 due  |         |
|    | 04/11<br>(T) | <ul style="list-style-type: none"> <li>Review functions</li> <li>Review</li> </ul>   | Teamwork 6: Pre-Work completed   | Quiz 10 |
| 15 | 04/16        | (Review Sections 5.1-5.6 before class)   | Project 2  |         |
|    |              | <ul style="list-style-type: none"> <li>Review</li> </ul>   |  |         |
|    | 04/18        | Computer Final   |  |         |
| 16 |              | Written Final  |  |         |

Note: Schedule is subject to change

(W): Writing instructors

(T): Teamwork unit

(P): Professional integrity unit