

## CS-UY 1133: Engineering Problem Solving and Programming Fall 2018

This is the official syllabus for CS-UY 1133.

**Instructor:** K. Ming Leung

**Office:** 10-096, 2 MTC

**Phone:** 646-997-3380

**Email:** [kml441@nyu.edu](mailto:kml441@nyu.edu)

**Office hours:** Monday: 9:00 – 10:00, 12:00 -- 13:00,  
Wednesday: 9:00 – 10:00, 14:00 – 15:00.

**Textbook:** “Matlab: A Practical Introduction to Programming and Problem Solving”,  
4<sup>th</sup> Edition, by Stormy Attaway, ISBN: 978-0-12-804525-1,  
Elsevier, 2017. Free electronic copies are available through the  
NYU Library Portal: [NYU-Library Portal](#)

**Course Website:** Materials for this course are available on NYU Classes.

**Grading Scheme:** Course grade will be computed according to the grand total score at the  
end of the semester:

$$\text{Grand total} = 1\% (\text{Clicker}) + 10\% (\text{HW}) + 15\% (\text{Lab}) + 20\% (\text{Exam1}) + 20\% (\text{Exam2}) + 34\% (\text{Final})$$

The letter grade shall be based on a rigid scheme to be specified shortly  
after midterm 1. For your information, the following scheme was used  
last semester:

Letter Grade	Minimum grand total score needed
A	91
A-	86
B+	81
B	75
B-	68
C+	61
C	56
C-	49
D+	42
D	35
F	0

**Getting a Copy of Matlab:** Make sure you get a free copy of Matlab from [NYU IT](#) as soon as possible. Make sure you use version R2016b or any other more recent versions. Version R2016a or other older ones cannot be used.

**Exam schedule:** First midterm: October 23 (Tuesday) from 12:30 to 1:40  
(Common-exam period). Location TBA.  
Second midterm: November 20 (Tuesday) from 12:30 to 1:40  
(Common-exam period). Location TBA.  
Final exam: Time and location: TBA

**In-class Questions:** You should expect in-class questions to be asked during each lecture. The total number of questions asked may vary from lecture to lecture. Each student must answer each question using his or her own assigned clicker.  
Not counting bonus points, a student can get a maximum of 100 points per lecture.  
A student gets 20 points simply by answer all the questions irrespective of their correctness.  
A student can get up to another 80 points for choosing the correct answers.  
A total number of bonus points equal to twice the number of students in the lecture are awarded.  
Only students who have answer correctly to at least one question are qualified to share the points.

Visit the website: [www.poly.edu/clickers](http://www.poly.edu/clickers) for technical issues related to the clickers.

**HW Assignments:** There will be about one HW assignment per week. They must be handed in online before the due date.  
**Absolutely no late HW is accepted.**  
Submit your HW early in case the Poly network is down when you unload your file.  
Multiple submissions are OK and only the final version before the due-date will be graded.  
Inspect the file that was submitted to make sure that it is the intended one. **(No excuse for submitting a wrong file!)**

**Labs:** A lab grade is determined by the effort in the lab rather than the correctness of the work.  
So make sure that you attend all the labs and seriously attempt all the required tasks.  
Any activities unrelated to the lab will lower your lab score. Points are deducted for arriving late or leaving early. Thus no surfing on the web, chatting, etc. during your lab is allowed.  
**A missing lab cannot be made-up for whatever reasons.**

With proper notification and justification, you may attend a different lab that day.

However you must contact us at least 24 hours in advance.

**Exams:** Exams consist of writing programs on paper (rather than on your computer).

Electronic devices are not allowed.

Textbooks and any form of lecture notes are not allowed.

**You must bring your NYU ID card with you.**

**Missing exams/labs:** If you believe you have a legitimate excuse, bring written documentation and contact:

Deanna Rayment  
Coordinator of Compliance  
Office of Student Affairs  
LC 240C, Dibner Building  
646-997-3046  
Deanna.rayment@nyu.edu

as soon as possible.

She will then contact me directly if the excuse is deemed justified (like a death in the family).

**Disabilities:** If you are student with a disability who is requesting accommodations, please contact [Moses Center for Students with disabilities](http://www.nyu.edu/csd) at 212-998-4980 or [mosescsd@nyu.edu](mailto:mosescsd@nyu.edu). You must be registered with CSD to receive accommodations. Information about the Moses Center can be found at [www.nyu.edu/csd](http://www.nyu.edu/csd). The Moses Center is located at 726 Broadway on the 2nd floor.

**Academic Misconduct:** Students in the class must obey the [Student Code of Conduct](#) of the School of Engineering. In particular, pay attention to the policies and procedures on academic misconduct. More specifically for the home assignments in this class, it is fine to discuss with anyone the procedure and method of solving a problem, but the computer program that you submit must be written entirely by yourself.

**Lecture notes and topics:** Detailed listing of topics and items covered in each lecture can be found in the document:

LectureNoteFilesS18.xlsx posted on NYU Classes under the Resources tab.

**FAQs:** FAQsS18 contains many question and answers pertinent to this course. You must read the entire document at least once before class starts.

It is the go-to place to seek answers to most of CS-UY 1133 organizational and logistics questions

**Course schedule:** Calendar with day-to-day listing of lectures, labs and HW due-dates:

## 2018 Weekly Calendar

Month	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Sep 2018	2	3 Labor Day	4 Classes start	5 Lec01: Scalar Variables & Floating-Point System	6	7 Lab01: Scalar Variables & Floating-Point System	8
	9	10 Lec02: Array Variables	11 HW01	12 Lec03: Element-wise Array Arith	13	14 Lab02: Array Variables & Element-wise Array Arith	15
	16	17 Lec04: Vector Indexing	18 HW02	19 Lec05: Built-in Functions	20	21 Lab03: Vector Indexing & Built-in Functions	22
	23	24 Lec06: Logical Variables, Arith Relations, & Logic Operations	25 HW03	26 Lec07: Logical Indexing	27	28 Lab04: Logical Variables, Arith Relations, Logic Operations, & Logical Indexing	29
	30	1 Lec08: Random Numbers & Probability	2 HW04	3 Lec09: Computer Simulations	4	5 Lab05: Array Applications	6
Oct 2018	7	8 Fall Recess	9 Monday schedule Lec10: Review HWs HW05	10 Lec11: Branching 1	11	12 Lab06: Mock Exam 1	13
	14	15 Lec12: Review Exam 1	16	17 Lec13: Branching 2	18	19 Lab07: Branching	20
	21	22 Lec14: For-Loop 1	23 Exam 1	24 Lec15: For-Loop 2	25	26 Lab08: For-Loop	27
	28	29 Lec16: While-Loop 1	30 HW06	31 Lec17: While-Loop 2	1	2 Lab09: While-Loop	3
Nov 2018	4	5 Lec18: Branching & Looping Withdrawal	6 HW07	7 Lec19: User-defined Functions 1	8	9 Lab10: Mock Exam 2	10
	11	12 Lec20: Review Exam 2	13 HW08	14 Lec21: User-defined Functions 2	15	16 Lab11: User-defined Functions	17
	18	19 Lec22: Strings 1	20 Exam 2	21 Thanksgiving	22	23 Recess	24

Month	Sun	Mon	Tue	Wed	Thu	Fri	Sat
	<b>25</b>	<b>26</b> Lec23: Strings 2	<b>27</b> HW09	<b>28</b> Lec24: Function with Strings	<b>29</b>	<b>30</b> Lab12: Strings	<b>1</b>
<b>Dec 2018</b>	<b>2</b>	<b>3</b> Lec25: Structure Variables 1	<b>4</b> HW10	<b>5</b> Lec26: Structure Variables 2	<b>6</b>	<b>7</b> Lab13: Structure Variables	<b>8</b>
	<b>9</b>	<b>10</b> Lec27: Final Review 1	<b>11</b> HW11	<b>12</b> No class	<b>13</b>	<b>14</b> Lab14: Mock Final Last Day of Classes	<b>15</b>
	<b>16</b>	<b>17</b> Finals start	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b> Finals End	<b>22</b>
	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>