



Microcontrollers & Applications

Lecture 0.1: About the Course

Who am I?

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Course Webpage

me.islerya.com/bme342.php

welcome to my homepage

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- Home page
- + About Me
- + Publications
- + Activities
- + Projects
- Lecture Notes
 - Electronic Circuits
 - Digital Logic & Design
 - **Microcontrollers**
 - Embedded Systems
 - Pattern Recognition
 - Statistical Data Analysis
- My schedule

BME342: Microcontrollers and Applications

Answers to the most stupid questions:	<ul style="list-style-type: none">◦ Yes, all contents before the mid-term exam are INCLUDED in the mid-term exam.◦ Yes, all contents are INCLUDED in the final exam.◦ No, you can use your medical report to pretend to join the excuse exam only, not for attendance obligatory.◦ No, I will not give you extra points. You should study more if you may need 1 point more even!												
Textbook	<ul style="list-style-type: none">◦ Internet												
Reference Texts	<ul style="list-style-type: none">◦ Internet												
Grading	Midterm (40%), and Final (60%)												
	<table border="1"><thead><tr><th>Week</th><th>Subjects</th><th>Files</th></tr></thead><tbody><tr><td>#1</td><td>Introduction</td><td><ul style="list-style-type: none">• Glossary</td></tr><tr><td>#2</td><td>Basic Concepts</td><td><ul style="list-style-type: none">• Comparing Microcontroller Boards• Programming and Testing Environments• Programming Languages</td></tr><tr><td>#3</td><td>C versus Python (1)</td><td><ul style="list-style-type: none">• Comments & Variables & Constants• General Structures & Libraries & File Names & Indenting• Arrays & String & Lists</td></tr></tbody></table>	Week	Subjects	Files	#1	Introduction	<ul style="list-style-type: none">• Glossary	#2	Basic Concepts	<ul style="list-style-type: none">• Comparing Microcontroller Boards• Programming and Testing Environments• Programming Languages	#3	C versus Python (1)	<ul style="list-style-type: none">• Comments & Variables & Constants• General Structures & Libraries & File Names & Indenting• Arrays & String & Lists
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- Theory+Lab: 3+1
- Single session per week
- Thursday 08:30-12:15

- Course webpage:

<https://me.islerya.com/bme342.php>

- Although we use simulators, it is strongly recommended to buy Arduino Uno and Raspberry Pi Pico packages.

Contents & Warnings

- We will
 - see both famous boards of Arduino Uno and Raspberry Pi Pico.
 - use C and Arduino IDE to program for Arduino Uno board.
 - use CircuitPython to program for Raspberry Pi Pico board.
 - learn the concepts of digital input/output, analog input and PWM output for both boards.
 - use LCD display, 7-segment display, sensors (LDR, Temperature, Pressure, Flex, Gas), actuators (DC motor, step motor, servo motor), several communication protocols (Serial, I2C, SPI, Bluetooth, WI-FI), and IoT technologies.
 - use online simulators of TinkerCad and WokWi.
- Answers to the several most stupid questions:
 - Yes, all contents before the mid-term exam are INCLUDED in the mid-term exam.
 - Yes, all contents are INCLUDED in the final exam.
 - No, you can use your medical report to pretend to join the excuse exam only, not for attendance obligatory.
 - No, I will not give you extra points. You should study more if you may need 1 point more even!
- Please, do not ask such questions !!!



Thanks for
listening 😊

YALÇIN İŞLER

Assoc. Prof.