Fall 2018 EE 313 Linear Systems and Signals Prof. Evans

***Mini-Project #1: FM Synthesis for Musical Instruments***

Assigned on Saturday, September 15, 2018

Due on Friday, September 21, 2018, by 5:00pm

*Late homework is subject to a penalty of two points per minute late*.

***Reading***: McClellan, Schafer and Yoder, *Signal Processing First*, 2003, Chapter 3.

Companion Web site with demos and other supplemental information: <http://dspfirst.gatech.edu/>

Web site contains solutions to selected homework problems from *DSP First*.

The e-mail address for Mr. Houshang Salimian (TA) is [salimian.houshang@gmail.com](mailto:salimian.houshang@gmail.com).

Office hours for Mr. Salimian and Prof. Evans during the week of Sept. 3rd follow:

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| --- | --- | --- | --- | --- | --- |
| ***Time Slot*** | ***Monday*** | ***Tuesday*** | ***Wednesday*** | ***Thursday*** | ***Friday*** |
| **11:00 am** |  | **Salimian (EER 0.814 Table #4)** |  | **Salimian (EER 0.814A)** |  |
| **11:30 am** |  | **Salimian (EER 0.814 Table #4)** |  | **Salimian (EER 0.814A)** |  |
| **12:00 pm** |  | **Salimian (EER 0.814 Table #4)** |  | **Salimian (EER 0.814A)** | **Salimian (EER 0.814D)** |
| **12:30 pm** |  | Evans (EER 1.516) |  | Evans (EER 1.516) | **Salimian (EER 0.814D)** |
| **1:00 pm** |  | Evans (EER 1.516) |  | Evans (EER 1.516) | **Salimian (EER 0.814D)** |
| **1:30 pm** |  | Evans (EER 1.516) |  | Evans (EER 1.516) | **Salimian (EER 0.814D)** |
| **2:00 pm** |  | Evans (EER 6.882) |  | Evans (EER 6.882) |  |
| **2:30 pm** |  | Evans (EER 6.882) |  | Evans (EER 6.882) |  |
| **3:00 pm** |  | Evans (EER 6.882) | **Salimian (EER 1.810)** | Evans (EER 6.882) |  |
| **3:30 pm** |  |  | **Salimian (EER 1.810)** |  |  |
| **4:00 pm** |  |  | **Salimian (EER 1.810)** |  |  |

**Assignment is to write a narrative report for Sections 1-4 of “Lab P-7: FM Synthesis for Musical Instruments - Bells and Clarinets” from the Web site for the *Signal Processing First* book:**

[**http://dspfirst.gatech.edu/chapters/DSP1st2eLabs/FMsynthLab.pdf**](http://dspfirst.gatech.edu/chapters/DSP1st2eLabs/FMsynthLab.pdf)

You may work individually or with one partner. If you work with a partner, then submit one mini-project report per team of two people. Be sure that the mini-project report represents the independent work of the author(s) on the report.