#### بسم الله الرحمن الرحيم

## College of Computer & Information Sciences King Saud University, Riyadh

CEN 340 Signals and Systems Spring 2018 Semester

Instructor: Prof. Ghulam Muhammad Course Outlines

#### Signals and Systems (CEN 340)

| Week    | Dates (Hijri) | Торіс  |  |
|---------|---------------|--|--|
| 1       | 4/5/1439H     | Introduction to Matlab                                   |  |
| 2       | 11/5          | Introduction to Matlab/Ch. 1: Signals and Systems        |  |
| 3       | 18/5          | Ch. 1: Signals and Systems                               |  |
| 4       | 25/5          | Ch. 1: Signals and Systems                               |  |
| 5       | 2/6/1439H     | Ch. 1: Signals and Systems                               |  |
| 6       | 9/6           | Ch. 2: Linear Time-Invariant Systems                     |  |
| 7       | 16/6          | Ch. 2: Linear Time-Invariant Systems                     |  |
| Exam I  | 12/6/1439H    | Wednesday, Feb 28, 2018 (evening hours)                  |  |
| 8       | 23/6          | Ch. 3: Fourier Series Representation of Periodic Signals |  |
| 9       | 1/7/1439H     | Ch. 4: The Continuous-Time Fourier Transform             |  |
| 10      | 8/7           | Ch. 4: The Continuous-Time Fourier Transform             |  |
| 11      | 15/7          | Ch. 4: The Continuous-Time Fourier Transform             |  |
| 12      | 22/7          | Ch.4: The ContTime Fourier/Ch. 9: The Laplace Trans.     |  |
| 13      | 29/7          | Ch. 9: The Laplace Transform                             |  |
| Exam II | 25/7/1439Н    | Wednesday, April 11, 2018 (evening hours)                |  |
| 14      | 6/8/1439H     | Ch. 9: The Laplace Transform                             |  |
| 15      | 13/8          | Final Exam (May 03, 2018)                                |  |

#### **Textbook:**

A. Oppenheim and A. Willsky, "Signals and Systems," Prentice Hall 1997.

## **Grading:**

| • | Exam I              | 20% |
|---|---------------------|-----|
| • | Exam II             | 20% |
| • | Assignments/Quizzes | 20% |
| • | Final               | 40% |

### **References:**

- L. Rabiner and R. Schafer, "Digital Processing of Speech Signal," Prentice Hall 1978.
- L.Rabiner and B. Juang, "Fundamentals of Speech Recognition," Prentice Hall1993.
- J. Deller, J. Proakis, and J. Hansen, "Discrete-Time Processing of Speech Signals," Macmillan 1993.
- A. Oppenheim and A. Willsky, "Signals and Systems," Prentice Hall 1997.
- Rowden, "Speech Processing," McGraw-Hill 1992.

# **Instructor:**

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