

| Week | Set | Date Avail<br>At 06:00 AM | Date Due<br>At 05:00:00 AM | Topics  |
|------|-----|---------------------------|----------------------------|---|
| 1    |     |                           |                            |   |
| 2    | 1   | 01/22/2019                | 01/30/2019                 | Section 9.1 – Sinusoidal Source<br>Section 9.2 – Sinusoidal Response<br>Section 9.3 – The Phasor<br>Section 9.4 – Phasor Form of Passive Elements<br>Section 9.5 – KCL/KVL in Freq Domain   |
| 3    | 2   | 01/22/2019                | 02/04/2019                 | Section 9.6 - Series and Parallel Simplifications<br>Section 9.7 – Source Transformations and Thévenin-Norton Equivalent Circuits<br>Section 9.8 – The Node-Voltage Method<br>Section 9.9 – The Mesh-Current Method<br>Section 9.10 – The Transformer<br>Section 9.11 – The Ideal Transformer |
| 4    | 3   | 01/22/2019                | 02/11/2019                 | Section 10.1 - Instantaneous Power<br>Section 10.2 – Average Power<br>Section 10.3 – rms<br>Section 10.4 - Complex Power<br>Section 10.5 – Power Calculations<br>Section 10.6 – Maximum Power   |
| 5    | 4   | 01/28/2019                | 02/18/2019                 | Section 11.1 – Balanced Three-Phase Voltages<br>Section 11.2 – Three-Phase Voltage Sources<br>Section 11.3 – Analysis of Wye-Wye Circuit<br>Section 11.4 – Analysis of Wye-Delta Circuit<br>Section 11.5 – Power Calcs in Balanced 3-Phase<br>Section 11.6 – Average Power in 3-Phase         |
| 6    | 5   | 02/04/2019                | 02/25/2019                 | Section 12.1 – Definition of Laplace Transform<br>Section 12.2 – The Step Function  |
| 7    | 6   | 02/11/2019                | 03/04/2019                 | Section 12.3 – The Impulse Function<br>Section 12.4 – Functional Transforms<br>Section 12.5 – Operational Transforms  |
| 8    | 7   | 02/18/2019                | 03/11/2019                 | Section 12.6 – Applying the Laplace Transform<br>Section 12.7 – Inverse Transforms  |

|    |    |            |            |  |
|----|----|------------|------------|--|
| 9  |    |            |            | Spring Break   |
| 10 | 8  | 02/25/2019 | 03/25/2019 | Section 12.8 – Poles and Zeros of $F(s)$<br>Section 12.9 – Initial- and Final-Value Theorems<br>Section 13.1 – Circuit Elements in the $s$ Domain  |
| 11 | 9  | 03/04/2019 | 04/02/2019 | Section 13.2 – Circuit Analysis in the $s$ Domain<br>Section 13.3 – Applications<br>Section 13.4 – The Transfer Function<br>Section 13.5 – The Transfer Function in Partial Fraction Expansions<br>Section 13.7 – The Transfer Function and the Steady-State Sinusoidal Response                         |
| 12 | 10 | 03/11/2019 | 04/08/2019 | Appendix E – Bode Plots<br>Section E.1 – Real, First-Order Poles and Zeros<br>Section E.2 – Straight-Line Amplitude Plots<br>Section E.4 – Straight-Line Phase Angle Plots<br>Section E.5 – Complex Poles and Zeros<br>Section E.6 – Amplitude Plots<br>Section E.8 – Phase Angle Plots                  |
| 13 | 11 | 03/25/2019 | 04/15/2019 | Section 14.1 – Some Preliminaries<br>Section 14.2 – Low-Pass Filters<br>Section 14.3 – High-Pass Filters   |
| 14 | 12 | 04/01/2019 | 04/22/2019 | Section 14.4 – Bandpass Filters<br>Section 14.5 – Bandreject Filters   |
| 15 | 13 | 04/08/2019 | 04/29/2019 | Section 15.1 – First-Order Active Filters<br>Section 16.1 – Fourier Analysis: An Overview<br>Section 16.2 – The Fourier Coefficients   |
| 16 | 14 | 04/15/2019 | 05/06/2019 | Section 16.3 – The Effect of Symmetry on the Fourier Coefficients<br>Section 16.4 – An Alternative Trigonometric Form of the Fourier Series<br>Section 16.5 – An Application<br>Section 16.6 – Average-Power Calculations with Periodic Functions<br>Section 16.7 – The rms Value of a Periodic Function |

### Quiz and Exam Organization

| Week | Quiz | Date Avail At 06:00 AM<br>Due by 23:59:00 PM | Topics  |
|------|------|--|---|
| 1    |      |  |   |
| 2    | 1    | 01/30/2019                                   | Chapter 9 – Circuit Analysis with phasors                         |
| 3    | 2    | 02/06/2019                                   | Chapter 9 – OpAmps in the Phasor Domain                           |
| 4    | 3    | 02/13/2019                                   | Chapter 10 –Complex Power   |
| 5    |      | 02/20/2019                                   | Midterm #1  |
| 6    | 4    | 02/27/2019                                   | Chapter 12 – Finding the Laplace Transform                        |
| 7    | 5    | 03/06/2019                                   | Chapter 12 – Inverse Laplace Transform                            |
| 8    | 6    | 03/13/2019                                   | Chapter 13 – s domain with initial conditions                     |
| 9    |      |  | Spring Break  |
| 10   | 7    | 03/27/2019                                   | Chapter 13 – The Transfer Function                                |
| 11   |      | 04/03/2019                                   | Midterm #2  |
| 12   | 8    | 04/10/2019                                   | Bode Diagrams   |
| 13   | 9    | 04/17/2019                                   | Chapter 14 – First Order Filters                                  |
| 14   | 10   | 04/24/2019                                   | Chapter 15 – Active Low-pass filter                               |
| 15   | 11   | 05/01/2019                                   | Chapter 16 – Fourier Coefficients                                 |
| 16   | 12   | 05/08/2019                                   | Chapter 16 - Alternative Trigonometric Form of the Fourier Series |
| 17   |      |  | Final Exam  |