

## CprE 2810: Class Schedule (Fall 2024)

| Week     | Day/Date        | Topic                         | Readings           | Homework | Lab          |
|----------|-----------------|-------------------------------|--------------------|----------|--------------|
| <b>1</b> | Monday 8/26     | Introduction                  | 1.1, 1.2, 1.3, 1.4 |          | No Lab       |
|          | Wednesday 8/28  | Binary Numbers                | 1.5, 1.6           |          |              |
|          | Friday 8/30     | Truth Tables & Logic Gates    | 2.1, 2.2, 2.3, 2.4 |          |              |
| <b>2</b> | Monday 9/2      | NO CLASS: University Holiday  |                    |          | Lab 1        |
|          | Wednesday 9/4   | Boolean Algebra               | 2.5                | HW 1 due |              |
|          | Friday 9/6      | AND, OR, NOT                  | 2.6                |          |              |
| <b>3</b> | Monday 9/9      | NAND, NOR                     | 2.7                | HW 2 due | Lab 2        |
|          | Wednesday 9/11  | Design Examples               | 2.8                |          |              |
|          | Friday 9/13     | Intro to Verilog              | 2.9, 2.10          |          |              |
| <b>4</b> | Monday 9/16     | Karnaugh Maps                 | 2.11               | HW 3 due | Lab 3        |
|          | Wednesday 9/18  | Minimization                  | 2.12, 2.13         |          |              |
|          | Friday 9/20     | Functions and Circuits        | 2.14, 2.15, 2.16   |          |              |
| <b>5</b> | Monday 9/23     | Examples                      | 2.17               | HW 4 due | Lab 4        |
|          | Wednesday 9/25  | Midterm Review Session        |                    |          |              |
|          | Friday 9/27     | Midterm #1                    |                    |          |              |
| <b>6</b> | Monday 9/30     | Addition of Unsigned Numbers  | 3.1, 3.2           | HW 5 due | Lab 5        |
|          | Wednesday 10/2  | Signed Numbers                | 3.3                |          |              |
|          | Friday 10/4     | Fast Adders                   | 3.4, 3.5           |          |              |
| <b>7</b> | Monday 10/7     | Multiplication                | 3.6                |          | Mini Project |
|          | Wednesday 10/9  | Floating Point Numbers        | 3.7                |          |              |
|          | Friday 10/11    | Multiplexers                  | 4.1                |          |              |
| <b>8</b> | Monday 10/14    | Decoders & Encoders           | 4.2, 4.3           | HW 6 due | Lab 6        |
|          | Wednesday 10/16 | Code Converters               | 4.4, 4.5           |          |              |
|          | Friday 10/18    | Latches                       | 5.1, 5.2, 5.3      |          |              |
|          | Friday 10/18    | * Midterm Grade Reports Due * |                    |          |              |
| <b>9</b> | Monday 10/21    | D Flip-Flops                  | 5.4                | HW 7 due | Lab 7        |
|          | Wednesday 10/23 | T Flip-Flops & JK Flip-Flops  | 5.5, 5.6, 5.7      |          |              |
|          | Friday 10/25    | Registers                     | 5.8                |          |              |

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|-----------|-----------------|--------------------------------|------------------|-----------|--------|
| <b>10</b> | Monday 10/28    | Register Files                 | 5.8              | HW 8 due  | Lab 8  |
|           | Wednesday 10/30 | Counters                       | 5.9, 5.10        |           |        |
|           | Friday 11/1     | Midterm # 2                    |                  |           |        |
|           | Friday 11/1     | ***DROP DEADLINE***            |                  |           |        |
| <b>11</b> | Monday 11/4     | Examples with Counters         | 5.11, 5.14, 5.17 | HW 9 due  | Lab 9  |
|           | Wednesday 11/6  | Basic Design Steps             | 6.1              |           |        |
|           | Friday 11/8     | State-Assignment Problem       | 6.2              |           |        |
| <b>12</b> | Monday 11/11    | Moore & Mealy Machines         | 6.3, 6.4         | HW 10 due | Lab 10 |
|           | Wednesday 11/13 | Serial Adder & Arbiter Circuit | 6.5, 6.8         |           |        |
|           | Friday 11/15    | State Minimization             | 6.6              |           |        |
| <b>13</b> | Monday 11/18    | Designing a Counter            | 6.7              | HW 11 due | Lab 11 |
|           | Wednesday 11/20 | Analysis of Syn. Seq. Circuits | 6.9              |           |        |
|           | Friday 11/22    | ASM charts & Examples          | 6.10 – 6.13      |           |        |
| <b>14</b> | Monday 11/25    | NO CLASS: Thanksgiving Break   |                  |           | No Lab |
|           | Wednesday 11/27 | NO CLASS: Thanksgiving Break   |                  |           |        |
|           | Friday 11/29    | NO CLASS: Thanksgiving Break   |                  |           |        |
| <b>15</b> | Monday 12/2     | Register Machines              |                  | HW 12 due | Lab 12 |
|           | Wednesday 12/4  | The i281 CPU                   |                  |           |        |
|           | Friday 12/6     | i281 Assembly Language         |                  |           |        |
| <b>16</b> | Monday 12/9     | Arithmetic Logic Unit & PC     |                  | HW 13 due | Lab 13 |
|           | Wednesday 12/11 | Software-Hardware Interface    |                  |           |        |
|           | Friday 12/13    | Assembly Examples              |                  |           |        |
| <b>17</b> | Wednesday 12/18 | FINAL EXAM @ 2:15-4:15 pm      | everything       |           | No Lab |