

King Saud University  
Electrical Engineering Department

EE354: Microprocessors Laboratory  
First Semester 1426/27 (2005/2006)

Credit Hours: 1

**Instructor:** Dr. Salah Foda  
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**Textbooks:**

*“Introduction to Microprocessors Laboratory Notes,” Salah G. Foda, 2005.*

**Course Outline and Experiments:**

The following table lists experiment sessions during the term. The outline follows closely the course laboratory notes.

<i>Week</i>	<i>Topics</i>
<b>1</b>	Introduction to 80x86 programming model and architecture
<b>2</b>	<b>Experiment 1:</b> Using the debugger and string manipulation
<b>3</b>	<b>Experiment 2:</b> Running programs and software interrupts
<b>4</b>	<b>Experiment 3:</b> Using the assembler and I/O programming
<b>5</b>	<b>Experiment 4:</b> Programming the PC and keyboard services
<b>6</b>	<b>Experiment 5:</b> Procedures, macros and mouse programming
<b>7</b>	<b>Experiment 6:</b> Memory management
<b>8</b>	<b>Midterm Test</b>
<b>9</b>	Functional description of the FLT-86 training board
<b>10</b>	<b>Experiment 7:</b> Basic I/O Hardware Interface
<b>11</b>	<b>Experiment 8:</b> Traffic Light Control
<b>12</b>	<b>Experiment 9:</b> Digital Conversion
<b>13</b>	<b>Experiment 10:</b> Motor Speed Control
<b>14</b>	<b>Experiment 11:</b> Temperature Control
<b>15</b>	<b>Final Test</b>

**Course Evaluation:**

70%	Laboratory Reports
10%	Midterm Test*
20%	Final Test*

\* Both tests are performed in the laboratory.