

# CONTENTS

1. Introduction .....	6
2. Educational Lab Safety Rules .....	7
3. General Instructions .....	8
4. Report Format .....	9
5. Error Analysis .....	9
5.1. How to estimate errors .....	10
5.2. How to report errors .....	11
5.3. Random vs. systematic errors.....	12
6. How to Use a Vernier Caliper .....	13
<b>Mechanics</b> .....	15
<i>Lab 8</i> .....	17
<i>Lab 9</i> .....	25
<i>Lab 13</i> .....	31
<i>Lab 18</i> .....	39
<b>Thermodynamics</b> .....	47
<i>Lab 20</i> .....	49
<i>Lab 26</i> .....	53
<i>Lab 30</i> .....	57
<b>Electricity</b> .....	63
<i>Lab 2</i> .....	65
<i>Lab 3</i> .....	69
<i>Lab 15</i> .....	75
<i>Lab 17</i> .....	81
<b>Optics</b> .....	89
<i>Lab 27</i> .....	91
<i>Lab 31</i> .....	97
<i>Lab 35</i> .....	105
<i>Lab 44</i> .....	111