

# SLO Performance Report (2019-20)

Program: Physics

Date: 08-17-2020

Terms: Spring 2020, Fall 2019, Summer 2019

**PHYSB4A: Mechanics and Wave Motion**

**1. Upon successful completion of this course, the student will be able to perform unit conversions required in various computations of physical quantities.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	2	1.90%	36	34.29%	42	40.00%	25	23.81%	105	100.00%
Fall 2019	1	1.23%	25	30.86%	53	65.43%	2	2.47%	81	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	3	1.61%	61	32.80%	95	51.08%	27	14.52%	186	100.00%

**2. Upon successful completion of this course, the student will be able to apply significant information of physics problems, analyze the information, and apply appropriate solutions to the problems.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	4	3.81%	5	4.76%	31	29.52%	65	61.90%	105	100.00%
Fall 2019	28	34.57%	36	44.44%	10	12.35%	7	8.64%	81	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	32	17.20%	41	22.04%	41	22.04%	72	38.71%	186	100.00%

**3. Upon successful completion of this course, the student will be able to use basic calculus, algebra and trigonometry to solve physics problems.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	4	3.81%	24	22.86%	61	58.10%	16	15.24%	105	100.00%
Fall 2019	6	7.41%	16	19.75%	52	64.20%	7	8.64%	81	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	10	5.38%	40	21.51%	113	60.75%	23	12.37%	186	100.00%

**4. Upon successful completion of this course, the student will be able to understand the concepts of the fundamental theories, principles and laws of physics.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	4	3.81%	27	25.71%	52	49.52%	22	20.95%	105	100.00%
Fall 2019	6	7.41%	53	65.43%	16	19.75%	6	7.41%	81	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>10</b>	<b>5.38%</b>	<b>80</b>	<b>43.01%</b>	<b>68</b>	<b>36.56%</b>	<b>28</b>	<b>15.05%</b>	<b>186</b>	<b>100.00%</b>

**5. Upon successful completion of this course, the student will be able to perform the experiments, collect the data, and analyze the results.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	2	1.90%	31	29.52%	63	60.00%	9	8.57%	105	100.00%
Fall 2019	0	0.00%	43	53.09%	36	44.44%	2	2.47%	81	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>2</b>	<b>1.08%</b>	<b>74</b>	<b>39.78%</b>	<b>99</b>	<b>53.23%</b>	<b>11</b>	<b>5.91%</b>	<b>186</b>	<b>100.00%</b>

**6. Upon successful completion of this course, the student will be able to apply fundamental physics theories and laws to explain various physical phenomena.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	4	3.81%	23	21.90%	37	35.24%	41	39.05%	105	100.00%
Fall 2019	6	7.41%	19	23.46%	37	45.68%	19	23.46%	81	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>10</b>	<b>5.38%</b>	<b>42</b>	<b>22.58%</b>	<b>74</b>	<b>39.78%</b>	<b>60</b>	<b>32.26%</b>	<b>186</b>	<b>100.00%</b>

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	20	3.17%	146	23.17%	286	45.40%	178	28.25%	630	100.00%
Fall 2019	47	9.67%	192	39.51%	204	41.98%	43	8.85%	486	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	67	6.00%	338	30.29%	490	43.91%	221	19.80%	1116	100.00%

**PHYSB2A: General Physics-Mechanics and Heat**

**1. Upon successful completion of the course, the student will be able to understand and apply concepts regarding properties of matter and basic principles and laws of mechanics and heat.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2019	4	5.19%	10	12.99%	47	61.04%	16	20.78%	77	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	4	5.19%	10	12.99%	47	61.04%	16	20.78%	77	100.00%

**2. Upon successful completion of this course, the student will be able to compute practical physics quantities in physics problems, using the theories and laws of mechanics, heat and wave motions.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2019	4	5.19%	10	12.99%	47	61.04%	16	20.78%	77	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	4	5.19%	10	12.99%	47	61.04%	16	20.78%	77	100.00%

**3. Upon successful completion of this course, the student will be able to use basic algebra and trigonometry in solving physics problems.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2019	4	5.19%	10	12.99%	47	61.04%	16	20.78%	77	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	4	5.19%	10	12.99%	47	61.04%	16	20.78%	77	100.00%

**4. Upon successful completion of this course, the student will be able to recognize significant information in physics problems, analyze the information, and apply appropriate solutions to the physics problems.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2019	4	5.19%	10	12.99%	47	61.04%	16	20.78%	77	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	4	5.19%	10	12.99%	47	61.04%	16	20.78%	77	100.00%

**5. Upon successful completion of this course, the student will be able to perform unit conversions required in various calculations with physical quantities.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2019	4	5.19%	10	12.99%	52	67.53%	11	14.29%	77	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	4	5.19%	10	12.99%	52	67.53%	11	14.29%	77	100.00%

**6. Upon successful completion of this course, the student will be able to perform the experiments, collect the data, and analyze the results.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2019	4	5.19%	12	15.58%	55	71.43%	6	7.79%	77	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	4	5.19%	12	15.58%	55	71.43%	6	7.79%	77	100.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2019	24	5.19%	62	13.42%	295	63.85%	81	17.53%	462	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	24	5.19%	62	13.42%	295	63.85%	81	17.53%	462	100.00%

**PHYSB2B: General Physics - Sound, Light, Electricity, Magnetism, Modern Physics****SLO 1: Upon successful completion of the course, the student will be able to apply and build upon the principles and conservation laws learned in this and prior physics courses to solve conceptual problems.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	36	63.16%	8	14.04%	13	22.81%	57	100.00%
Fall 2019	0	0.00%	4	33.33%	5	41.67%	3	25.00%	12	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	40	57.97%	13	18.84%	16	23.19%	69	100.00%

**SLO 2: Upon successful completion of the course, the student will be able to analyze by critical reading skills the meaning of technical material as it is presented in the context of labs, lecture, and problem solving.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	24	63.16%	8	21.05%	6	15.79%	38	100.00%
Fall 2019	0	0.00%	7	58.33%	4	33.33%	1	8.33%	12	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	31	62.00%	12	24.00%	7	14.00%	50	100.00%

**SLO 3: Upon successful completion of the course, the student will be able to continue to develop and apply an effective methodological approach to solving conceptual and quantitative problems typical to the course.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	22	57.89%	4	10.53%	12	31.58%	38	100.00%
Fall 2019	0	0.00%	7	58.33%	4	33.33%	1	8.33%	12	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	29	58.00%	8	16.00%	13	26.00%	50	100.00%

**SLO 4: Upon successful completion of the course, the student will be able to analyze experimental data through regression techniques and other applied statistical methods and create models for describing physical behavior of systems.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	13	68.42%	6	31.58%	0	0.00%	19	100.00%
Fall 2019	1	8.33%	8	66.67%	3	25.00%	0	0.00%	12	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	1	3.23%	21	67.74%	9	29.03%	0	0.00%	31	100.00%

**SLO 5: Upon successful completion of the course, the student will be able to continue to apply laboratory skills regarding safety, apparatus use, procedure, and measurement.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	0	0.00%	19	100.00%	0	0.00%	19	100.00%
Fall 2019	0	0.00%	6	50.00%	6	50.00%	0	0.00%	12	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	6	19.35%	25	80.65%	0	0.00%	31	100.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	95	55.56%	45	26.32%	31	18.13%	171	100.00%
Fall 2019	1	1.67%	32	53.33%	22	36.67%	5	8.33%	60	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	1	0.43%	127	54.98%	67	29.00%	36	15.58%	231	100.00%

**PHYSB4B: Heat, Electricity, Magnetism**

**1. Upon successful completion of the course, the student will be able to apply and build upon the principles and conservation laws learned in this and prior physics courses to solve conceptual problems.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	1	0.49%	116	56.59%	66	32.20%	22	10.73%	205	100.00%
Fall 2019	4	1.78%	92	40.89%	90	40.00%	39	17.33%	225	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	5	1.16%	208	48.37%	156	36.28%	61	14.19%	430	100.00%

**1. Upon successful completion of the course, the student will be able to analyze by critical reading skills the meaning of technical material as it is presented in the context of labs, lecture, and problem solving.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	1	0.81%	68	55.28%	34	27.64%	20	16.26%	123	100.00%
Fall 2019	7	1.87%	83	22.13%	162	43.20%	123	32.80%	375	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>8</b>	<b>1.61%</b>	<b>151</b>	<b>30.32%</b>	<b>196</b>	<b>39.36%</b>	<b>143</b>	<b>28.71%</b>	<b>498</b>	<b>100.00%</b>

**3. Upon successful completion of the course, the student will be able to continue to develop and apply an effective methodological approach to solving conceptual and quantitative problems typical to the course.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	47	38.21%	63	51.22%	13	10.57%	123	100.00%
Fall 2019	8	2.13%	66	17.60%	161	42.93%	140	37.33%	375	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>8</b>	<b>1.61%</b>	<b>113</b>	<b>22.69%</b>	<b>224</b>	<b>44.98%</b>	<b>153</b>	<b>30.72%</b>	<b>498</b>	<b>100.00%</b>

**4. Upon successful completion of the course, the student will be able to analyze experimental data through regression techniques and other applied statistical methods and create models for describing physical behavior of systems.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	21	51.22%	19	46.34%	1	2.44%	41	100.00%
Fall 2019	1	1.33%	63	84.00%	9	12.00%	2	2.67%	75	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	<b>1</b>	<b>0.86%</b>	<b>84</b>	<b>72.41%</b>	<b>28</b>	<b>24.14%</b>	<b>3</b>	<b>2.59%</b>	<b>116</b>	<b>100.00%</b>



**5. Upon successful completion of the course, the student will be able to continue to apply laboratory skills regarding safety, apparatus use, procedure, and measurement.**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	0	0.00%	41	100.00%	0	0.00%	41	100.00%
Fall 2019	1	1.33%	30	40.00%	44	58.67%	0	0.00%	75	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	1	0.86%	30	25.86%	85	73.28%	0	0.00%	116	100.00%

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	2	0.38%	252	47.28%	223	41.84%	56	10.51%	533	100.00%
Fall 2019	21	1.87%	334	29.69%	466	41.42%	304	27.02%	1125	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	23	1.39%	586	35.34%	689	41.56%	360	21.71%	1658	100.00%

**PHYSB4C: Optics and Modern Physics**

**SLO 1: Upon successful completion of the course, the student will be able to apply and build upon the principles and conservation laws learned in this and prior physics courses to solve conceptual problems.**

CSLO not included in any Assessment Rubric

**SLO 2: Upon successful completion of the course, the student will be able to analyze by critical reading skills the meaning of technical material as it is presented in the context of labs, lecture, and problem solving.**

CSLO not included in any Assessment Rubric

**SLO 3: Upon successful completion of the course, the student will be able to continue to develop and apply an effective methodological approach to solving conceptual and quantitative problems typical to the course.**

CSLO not included in any Assessment Rubric

**SLO 4: Upon successful completion of the course, the student will be able to analyze experimental data through regression techniques and other applied statistical methods and create models for describing physical behavior of systems.**

CSLO not included in any Assessment Rubric

**SLO 5: Upon successful completion of the course, the student will be able to continue to apply laboratory skills regarding safety, apparatus use, procedure, and measurement.**

CSLO not included in any Assessment Rubric

**Totals for CSLOs**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Fall 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

**Report Totals:**

	N/A		Exceeds expectations		Meets expectations		Does not meet expectations		Total	
Spring 2020	22	1.65%	493	36.96%	554	41.53%	265	19.87%	1334	100.00%
Fall 2019	93	4.36%	620	29.07%	987	46.27%	433	20.30%	2133	100.00%
Summer 2019	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Totals	115	3.32%	1113	32.10%	1541	44.45%	698	20.13%	3467	100.00%

