



## PHYSICS PROGRAM

## FRESHMAN YEAR

Fall Semester		R	L	C	Spring Semester		R	L	C
PHY109	Freshman Seminar	2	0	2	PHY111	Physics for Science & Engineering I <sup>1</sup>	3.5	1.5	4
MTH113	Calculus for Applied Sci. & Eng. I <sup>2</sup>	4	0	4	MTH114	Calculus for Applied Sci. & Eng. II <sup>2</sup>	4	0	4
EGR101	Intro. to Engineering Applied Sci. I	1	3	2	EGR102	Intro. to Engineering Applied Sci. II	1.5	1.5	2
ENL101	Critical Writing & Reading I	3	0	3	ENL102	Critical Writing & Reading II	3	0	3
CIS115	Computer Programming with C <sup>3,4</sup>	3	0	3		General Education Elective <sup>5</sup>	3	0	3
<b>Semester Credits</b>				<b>14</b>					<b>16</b>

## SOPHOMORE YEAR

Fall Semester		R	L	C	Spring Semester		R	L	C
PHY112	Physics for Science & Engineering II <sup>1</sup>	3.5	1.5	4	PHY213	Applied Modern Physics	4	0	3
PHY115	Introduction to Classical Physics <sup>6</sup>	4	0	3	PHY234	Intermediate Mathematical Physics	4	0	3
PHY225	Introductory Experimental Physics I	1	3	2	PHY227	Introductory Experimental Physics II	0	3	1
MTH213	Calculus for Applied Sci. & Eng. III <sup>2</sup>	4	0	4	MTH212	Differential Equations I	3	0	3
ENL266	Technical Communications <sup>7</sup>	3	0	3		General Education Elective <sup>5</sup>	3	0	3
						General Education Elective <sup>5</sup>	3	0	3
<b>Semester Credits</b>				<b>16</b>					<b>16</b>

## JUNIOR YEAR

Fall Semester		R	L	C	Spring Semester		R	L	C
PHY341	Quantum Mechanics I	4	0	3	PHY342	Quantum Mechanics II	4	0	3
PHY313	Mechanics	3	0	3	PHY411	Electric & Magnetic Fields I	3	0	3
PHY441	Statistical Thermodynamics	3	0	3	PHY322 <sup>8</sup>	Electronic Devices & Circuits II	2	2	3
	Science Elective <sup>9</sup>	3	0	3		Science Elective <sup>9</sup>	3	0	3
	General Education Elective <sup>5</sup>	3	0	3		Free Elective	3	0	3
<b>Semester Credits</b>				<b>15</b>					<b>15</b>

## SENIOR YEAR

Fall Semester		R	L	C	Spring Semester		R	L	C
PHY442	Elements of Solid State Physics	3	0	3	PHY421 <sup>8</sup>	Advanced Laboratory	0	6	3
PHY	Physics Elective (200+ level)	3	0	3	PHY	Physics Elective (300+ level)	3	0	3
	Free Elective	3	0	3	PHY	Physics Elective (300+ level)	3	0	3
	Free Elective	3	0	3		Free Elective	3	0	3
	General Education Elective <sup>5</sup>	3	0	3		General Education Elective <sup>5</sup>	3	0	3
<b>Semester Credits</b>				<b>15</b>					<b>15</b>

**Total Credits = 122**

R=Recitation+Lecture (hours)

L=Laboratory (hours)

C=Number of Credits

To graduate with a Bachelor of Science degree in Physics, a minimum of 120 university credits are required. Of these, 45 credits must be approved Physics courses, and 30 credits must be at the 300-level or higher. A 2.000 cumulative GPA for all courses as well as a 2.000 cumulative GPA for approved Physics courses is required to graduate. Approved Physics courses include all PHY courses at the 300-level or higher, together with PHY courses 109, 111, 112, 113, 114, 115, 213, 225, 227, 234, 252 and 271.

<sup>1</sup> The non-IMPULSE courses PHY113 & PHY114 can substitute for PHY111 & PHY112 respectively.

<sup>2</sup> The non-IMPULSE courses MTH111, MTH112 & MTH211 can substitute for MTH113, MTH114 & MTH213 respectively.

<sup>3</sup> The courses CIS180 and ECE160 also satisfy this requirement. Other courses may be substituted with approval of the faculty advisor.

<sup>4</sup> This course satisfies the General Education Area I (Tier II) requirement (Information and Computer Literacy).

<sup>5</sup> Students must complete 18 credits which satisfy the University's General Education requirements (Areas C,D,E & G).

<sup>6</sup> This course satisfies the General Education Area O requirement (Oral Communication).

<sup>7</sup> This course satisfies the General Education Area W requirement (Written Communication).

<sup>8</sup> A minimum of 6 credits of advanced lab courses is required. Other courses may be substituted with approval of the faculty advisor.

<sup>9</sup> Students must complete 6 credits in a second science, mathematics or engineering. Courses from one of BIO, CHM, CIS, CEN, ECE, MNE, MTH or Astrophysics (PHY252 & PHY363) which satisfy the major requirement for the respective department may be selected. The courses must be approved by the faculty advisor.