

Physics Assessment Plan Rev. 11/16/2019

Physics	16-17	17-18	18-19	19-20	20-21	21-22
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**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.	C	C		P		P
• 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.	C		C	P	P	P
• 3. Upon successful completion of this course, the student will be able to use basic algebra and trigonometry in solving physics problems.	C		C	P	P	P
• 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.	C	C	C	P	P	P
• 5. Upon successful completion of this course, the student will be able to perform unit conversions required in various calculations with physical quantities.	C		C	P	P	P
• 6. Upon successful completion of this course, the student will be able to perform the experiments, collect the data, and analyze the results.				P	P	P

**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.			C	P	P	P
• 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.			C	P	P	P
• 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.			C	P	P	P
• 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.			C	P	P	P
• 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.			C	P	P	P

**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.			C	P	P	P
• 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.		C	C	P	P	P
• 3. Upon successful completion of this course, the student will be able to use basic calculus, algebra and trigonometry to solve physics problems.			C	P	P	P
• 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.			C	P	P	P
• 5. Upon successful completion of this course, the student will be able to perform the experiments, collect the data, and analyze the results.		C	C	P	P	P
• 6. Upon successful completion of this course, the student will be able to apply fundamental physics theories and laws to explain various physical phenomena.		C	C	P	P	P

**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.			C	P	P	P
• 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.			C	P	P	P
• 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.			C	P	P	P
• 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.			C	P	P	P
• 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.			C	P	P	P

Physics	16-17	17-18	18-19	19-20	20-21	21-22
<b>PHYSB4C - Optics and Modern Physics</b>						
• 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.			C			
• 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.			C			
• 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.			C			
• 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.			C			
• 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.			C			