

## Associate Degree Graduation Requirements

(1) Complete all department requirements with a “C” or better or “P” in each course (at least 20% of the department requirements must be completed through SBCC); (2) Complete one of the following three General Education options: **OPTION 1:** SBCC General Education Requirements ([Areas A-D](#)) and Institutional Requirements ([Area E](#)) and Information Competency Requirement ([Area F](#)) OR **OPTION 2:** [IGETC Pattern](#) OR **OPTION 3:** [CSU GE Breadth Pattern](#); (3) Complete a total of 60 degree-applicable units (SBCC courses numbered 100 and higher); (4) Maintain a cumulative GPA of 2.0 or better in all units attempted at SBCC; (5) Maintain a cumulative GPA of 2.0 or better in all college units attempted; and (6) Complete 15 units through SBCC.

### Department Requirements (Total Department Units: 50-51)

<i>Current Course No.</i>	<i>Previous Course No.</i>	<i>Title</i> <small>applies to SBCC GE areas</small>	<i>Units</i>	<i>Institution &amp; Course No.</i>	<i>Grade</i>	<i>Units (s/q)</i>	<i>Term</i>
• CHEM 155	.....(5).....	General Chemistry I <sup>A</sup>	5.0	_____			
• CHEM 156	.....(6).....	General Chemistry II	5.0	_____			
• CS 105	.....(135/COMSC 135/35)	Theory and Practice I <b>OR</b>	3.0	_____			
CS 107	.....(131/COMSC 131/31)	Computer Architecture & Organization <b>OR</b>	3.0	_____			
CS 137	.....(COMSC 137/37)	C Programming <b>OR</b>	3.0	_____			
CS 140	.....(COMSC 140)	Object-Oriented Programming, Using C++	4.0	_____			
• MATH 150	.....(25).....	Calculus with Analytic Geometry I <sup>D2</sup>	5.0	_____			
• MATH 160	.....(26).....	Calculus with Analytic Geometry II <sup>D2</sup>	5.0	_____			
• MATH 200*	.....(27).....	Multivariable Calculus <sup>D2</sup>	4.0	_____			
• MATH 210*	.....(29).....	Linear Algebra <sup>D2</sup>	4.0	_____			
• MATH 220*	.....(28).....	Differential Equations <sup>D2</sup>	4.0	_____			
• PHYS 121	.....(21).....	Mechanics of Solids and Fluids <sup>A</sup>	5.0	_____			
• PHYS 122	.....(22).....	Electricity and Magnetism	5.0	_____			
• PHYS 123	.....(23).....	Heat, Light and Modern Physics	5.0	_____			

\*MATH 250 & 260 will also satisfy the MATH 200 & 210 & 220 requirements.

### Additional Program Information

For further information, contact the Counseling Center, 965-0581, Ext. 2285, or Michael Young, Department Chair, 965-0581, Ext. 2697.

**SBCC AA/AS Degree Graduation Requirements Worksheet (Must complete IA or IB or IC, and II, and III and IV below)**



Santa Barbara City College

# Physics

## 2017-18

### Associate in Arts/Science Degree in Physics

Physics is the foundation discipline which must be incorporated into the education of anyone preparing for a career in a physical or a life science. Knowledge of Physics is also necessary for those people who are non-scientists, when their decisions are linked to technologies based on the application of physical principles. These include people in the fields of politics, business, and social science.

### Careers in Physics

Because of a strong background in math and science, a physicist has a wide variety of job opportunities available. A few of the many career opportunities open to a physicist are research scientist, teacher, laboratory technician, science librarian, technical writer, engineer, and engineering related fields.

IA. IGETC ( <a href="http://articulation.sbcc.edu/IGETC/IGETC.pdf">http://articulation.sbcc.edu/IGETC/IGETC.pdf</a> )		Course #	Grade	Units (s/q)	Term
1A.	English Composition				
1B.	Critical Thinking-English Composition				
1C.	Oral Communication (CSU only)				
2A.	Mathematics				
3A.	Arts				
3B.	Humanities				
4.	Social Sciences				
5A/5C.	Physical Sciences				
5B/5C.	Biological Sciences				
6A.	Language Other Than English (UC only)				
IB. CSU GE Breadth Pattern ( <a href="http://articulation.sbcc.edu/CSU/CSUGE.pdf">http://articulation.sbcc.edu/CSU/CSUGE.pdf</a> )		Course #	Grade	Units (s/q)	Term
A1.	Oral Communication				
A2.	Written Communication				
A3.	Critical Thinking				
B1/B3.	Physical Science				
B2/B3.	Life Science				
B4.	Mathematics				
C1.	Arts				
C2.	Humanities				
D.	Social Sciences				
E.	Lifelong Learning and Self-Development				
IC. SBCC GE, Institutional & Info Competency ( <a href="http://www.sbcc.edu/apply/files/pereg.pdf">http://www.sbcc.edu/apply/files/pereg.pdf</a> )		Course #	Grade	Units (s/q)	Term
A.	Natural Sciences with Lab				
B.	Social and Behavioral Science				
C.	Humanities				
D-1.	English Composition				
D-2.	Communication and Analytical Thinking				
E-1.	Mathematics - Plus complete 3 out of the 4 areas listed below (E-2 through E-5)				
E-2.	American Institutions				
E-3.	Physical Education/Health Education				
E-4.	Oral Communication				
E-5.	Multicultural/Gender Studies				
F.	Information Competency				

**II. Unit and Grade Point Average Requirements:** Refer to Graduation Requirements on the other side of this document.

	Total Semester Units Attempted	Total Semester Units Completed	Grade Points	GPA
SBCC				
Transfer				
<b>Total</b>				

**III. Residency Requirements:** 15 units completed through SBCC & 20% of Department Requirements completed through SBCC?  Yes  No

**IV. Department Requirements:** Refer to the other side of this document for a list of department required courses.  Yes  No

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