

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: 48-54)

<i>Current</i> Course No.	<i>Previous</i> Course No.	<i>Title</i> <small>applies to SBCC GE areas</small>	<i>Units</i>	<i>Institution &</i> <i>Course No.</i>	<i>Grade</i>	<i>Units</i> (s/g)	<i>Term</i>
I. Core Courses:							
• CHEM 155.....	(5).....	General Chemistry I ^A	5.0	_____	_____	_____	_____
• ENGR 101	(1).....	Introduction to Engineering	2.0	_____	_____	_____	_____
• MATH 150	(25).....	Calculus w/ Analytic Geometry I ^{D2}	5.0	_____	_____	_____	_____
• MATH 160	(26).....	Calculus w/ Analytic Geometry II ^{D2}	5.0	_____	_____	_____	_____
• MATH 200+	(27).....	Multivariable Calculus ^{D2}	4.0	_____	_____	_____	_____
• MATH 210+	(29).....	Linear Algebra ^{D2}	4.0	_____	_____	_____	_____
• PHYS 121	(21).....	Mechanics of Solids and Fluids ^A	5.0	_____	_____	_____	_____
• PHYS 122	(22).....	Electricity & Magnetism	5.0	_____	_____	_____	_____

+MATH 250 satisfies this requirement.

II. One of the following courses is required:(*)

• ENGR 115	(15).....	Statics & Strength of Materials OR	4.0	_____	_____	_____	_____
• ENGR 117	(17).....	Electronic Circuits AND	3.0	_____	_____	_____	_____
ENGR 117L.....	(18).....	Electronic Circuits, Laboratory	1.0	_____	_____	_____	_____

III. Plus at least 3 additional courses from the following list:(*)

• CHEM 156.....	(6).....	General Chemistry II	5.0	_____	_____	_____	_____
• CS 105.....	(135/COMSC 135/35) ..	Theory and Practice I	3.0	_____	_____	_____	_____
• CS 107.....	(131/COMSC 131/31) ..	Computer Architecture & Organization.....	3.0	_____	_____	_____	_____
• CS 137.....	(COMSC 137/37)	C Programming	3.0	_____	_____	_____	_____
• DRFT 130	(DRAFT 130/21)	Comp.-Assist. Draft. & Design I.....	5.0	_____	_____	_____	_____
• ENGR 105	(5).....	Engineering Graphics	4.0	_____	_____	_____	_____
• ENGR 115	(15).....	Statics & Strength of Materials	4.0	_____	_____	_____	_____
• ENGR 116	(none).....	Dynamics	4.0	_____	_____	_____	_____
• ENGR 117	(17).....	Electronic Circuits AND	3.0	_____	_____	_____	_____
ENGR 117L.....	(18).....	Electronic Circuits, Laboratory	1.0	_____	_____	_____	_____
• MATH 220♦.....	(28).....	Differential Equations ^{D2}	4.0	_____	_____	_____	_____
• PHYS 123	(23).....	Heat, Light, and Modern Physics.....	5.0	_____	_____	_____	_____

♦ MATH 260 may also count toward the elective requirement.

Note: A course may not be used to satisfy more than one requirement (double counting is not allowed).

(*) Completion of ENGR 140 satisfies either the one course requirement in II or one of the three courses required in III. Completion of ENGR 140 and 141 satisfies the one course requirement in II **AND** one of the three courses required in III **OR** satisfies two of the three courses required in III.

Additional Program Information

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

Engineering

2017-18

Associate in Science/Associate in Arts Degree in Engineering

Engineering is the profession in which the physical, biological, and social sciences are applied to solve practical problems for the benefit of society. As an engineering student, you will learn to observe and describe problems that deal with human needs and to seek useful solutions to these problems. Your skills upon graduation will be useful to you not only as an engineer, but also as a professional in management, sales, operations, manufacturing and other fields.

Careers in Engineering

Graduates may enter professional occupations such as engineering design, computer hardware, systems analysis, modeling and simulation, manufacturing, applied research and field engineering. They may pursue careers in a broad cross-section of industry, government agencies, public utilities, marketing groups and educational institutions.

SBCC: Your Open Door to Educational Excellence

IA. IGETC (http://articulation.sbcc.edu/IGETC/IGETC.pdf)		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 (http://articulation.sbcc.edu/CSU/CSUGE.pdf)		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 (http://www.sbcc.edu/apply/files/pereg.pdf)		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 - <i>Plus complete 3 out of the 4 areas listed below (E-2 through E-5)</i>				
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				
Total				

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