

# Science - Specialization in Engineering

## Associate of Arts and Sciences Degree

**Program Coordinator:** Tom Tidwell/Brian Hale • LRC 216/OTC 229 • 276-739-2409/276-739-2433

**Length:** Four semesters (two years)

**Purpose:** This program is designed to provide the first two years of general engineering education common to most engineering majors at universities in the US. It will prepare a student to transfer to a four year school and begin classes in a declared major. The Engineering classes that we offer will prepare a student to take the Fundamentals of Engineering exam which is the first test in the sequence to becoming a licensed professional engineer; transferability will depend on the transfer institution and specific major.

Students are urged to follow the [recommended pathway](#) for this degree when making elective selections.

Additional approved humanities and social science electives are listed at <http://www.vhcc.edu/GenEdCore>.

Students who are planning to transfer are urged to acquaint themselves with the requirements of the major department in the college or university to which transfer is contemplated and to consult with their counselor or advisor at Virginia Highlands Community College in planning their program and selecting electives.

Course Number	Course Title	Lecture Hours	Lab Hours	Credits
<b>First Semester (Fall)</b>				
ENG 111	College Composition I	3	0	3
HIS	History 101, 111 or 121	3	0	3
MTH 263	Calculus I	4	0	4
MTH 266	Linear Algebra	3	0	3
CHM 111	College Chemistry I	3	3	4
SDV 101	Orientation to College Success	1	0	1
<b>Total</b>		<b>17</b>	<b>3</b>	<b>18</b>
<b>Second Semester (Spring)</b>				
ENG 112	College Composition II	3	0	3
HIS	History 102, 112 or 122	3	0	3
MTH 264	Calculus II	4	0	4
EGR 140	Engineering Mechanics – Statics	3	0	3
CST 100	Principles of Public Speaking	3	0	3
<b>Total</b>		<b>16</b>	<b>0</b>	<b>16</b>
<b>Third Semester (Fall)</b>				
EEE	Social Science Elective	3	0	3
ITP	Computer Programming Course	4	0	4
MTH 265	Calculus III	4	0	4
PHY 241	University Physics I	3	3	4
EGR 245	Engineering Mechanics – Dynamics	3	0	3
<b>Total</b>		<b>17</b>	<b>3</b>	<b>18</b>
<b>Fourth Semester (Spring)</b>				
ENG	Literature or Humanities Elective	3	0	3
HUM	Literature or Humanities Elective	3	0	3
MTH 267	Differential Equations	3	0	3
PHY 242	University Physics II	3	3	4
EGR 246	Mechanics of Materials	3	0	3
EGR 299	Supervised Study	1	0	1
<b>Total</b>		<b>16</b>	<b>3</b>	<b>17</b>
<b>Total Minimum Credits for the AA&amp;S Degree</b>				<b>69</b>