

## Program Pathway – *B.A.S. Engineering Technology*

This map is a term-by-term sample course schedule. Highlighted courses have been identified as "key courses." It is strongly advised that students make every effort to pass these courses on the first attempt with a "C" or higher in order to be successful in this program. The milestones listed below each year are designed to keep you on course to graduate in four years. Missing milestones could prevent you from being eligible for a particular program or could result in a delay in graduation. The Program Pathway serves as a general guideline to help you build a full schedule each term.

<b>First Year – Fall</b>			
<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre-requisites</b>
ENGL 1101 *	English Composition I	3	Minimum SAT/ACT/Accuplacer scores
MATH 1113	Precalculus	3	MATH 1111 or Minimum SAT/ACT
CHEM 1211K	Principles of Chemistry I	4	MATH 1111 ('C' or higher) and ENGL 0999 unless exempt
COMM 1110	Fundamentals of Speech	3	
PRSP 1050	Perspectives in STEM	1	
<b>Semester Total</b>		<b>14</b>	

<b>First Year – Spring</b>			
<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre-requisites</b>
ENGL 1102 *	English Composition II	3	ENGL 1101 ('C' or higher)
MATH 2253 *	Calculus & Analytical Geometry I	4	MATH 1113
Social Sciences Elective	Subject options: ANTH, ECON, GEOG, HIST, PHIL, POLS, PSYC, SOCI	3	varies
MATH 1401	Elementary Statistics	3	
HIST 211X	United States History	3	ENGL 0999 unless exempt
<b>Semester Total</b>		<b>16</b>	

<b>First Year Milestones</b>
<ul style="list-style-type: none"> <li>• Complete ENGL 1101 and ENGL 1102</li> <li>• Complete MATH 1113, MATH 2253, and CHEM 1211K</li> <li>• Meet with your advisor.</li> <li>• Consider job shadow opportunity.</li> </ul>

<b>Second Year – Fall</b>			
<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre-requisites</b>
English Elective	English Literature (ENGL 2xxx)	3	Pre-req ENGL 1102 ('C' or higher)
MATH 2254 *	Calculus & Analytical Geometry II	4	MATH 2253
PHYS 2211K *	Principles of Physics I	4	MATH 2253
ECON 2105	Macroeconomics	3	MATH 1111 or higher ('C' or better)
<b>Semester Total</b>		<b>14</b>	

<b>Second Year – Spring</b>			
<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre-requisites</b>
PHYS 2212K	Principles of Physics II	4	PHYS 2211K
Arts/ Humanities Elective	Subject options: ENGL, ARTS, HUMN, MUSC, THEA	3	varies
CMPS 1371	Computing for Scientist & Engineer (Spring only)	3	Co-req MATH 2253
Technical Elective	ACCT 2101, ACCT 2102, BUSA 2106, CHEM 1212K, ECON 2106, ECON 4101, ENGR 4860, MATH 2255, MATH 2256, MATH 2403, MGNT 3051, SUST 2000	3	varies
ENGR 2205*	Statics	3	MATH 2253, PHYS 2211K with a 'C' or better
<b>Semester Total</b>		<b>16</b>	

<b>Second Year Milestones</b>
<ul style="list-style-type: none"> <li>• Meet with your advisor.</li> <li>• Establish specific career goals and research necessary education/training.</li> </ul>

<b>Third Year - Fall</b>			
<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre-requisites</b>
ENGR 3420*	Industrial and Environmental Safety (Even years only)	3	Co-req PHYS 2211K
Technical Elective	See list above.	3	varies
POLS 1101	American Government	3	ENGL 0999 unless exempt
ENGR 3301K*	Circuits I (Fall only)	4	PHYS 2211K
Technical Elective	See list above.	4	varies
<b>Semester Total</b>		<b>17</b>	

<b>Third Year – Spring</b>			
<b>Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre-requisites</b>
ENGR 3302K*	Circuits II (Spring only)	4	PHYS 2212K, ENGR 3301K
ENGR 2240	Dynamics (Spring only)	3	ENGR 2205 with a 'C' or better
ENGR 3131K*	Strength of Materials (Spring only)	4	ENGR 2205 with a 'C' or better, MATH 2254
ENGR Elective*	Engineering Elective	3	varies
<b>Semester Total</b>		<b>14</b>	

Third Year Milestones
<ul style="list-style-type: none"> <li>• Meet with your advisor.</li> <li>• Have completed resume on file in Handshake.</li> <li>• Begin researching internship opportunities.</li> <li>• Attend Career Fair to apply for internships.</li> </ul>

Fourth Year – Fall			
Course Number	Course Title	Credits	Pre-requisites
ENGR 3343K*	Fluid Mechanics (Fall only)	4	ENGR 2205 with a 'C' or better
ENGR 4101*	Materials Science (Fall only)	3	CHEM 1211K, PHYS 2211K
ENGR Elective*	Engineering Elective	3	varies
ENGR 3072K*	Electrical Energy Systems (Fall only)	4	Circuits courses, PHYS 2211K
ENGR 3410*	Thermodynamics (Fall only)	3	PHYS 2111K
<b>Semester Total</b>		<b>17</b>	

Fourth Year – Spring			
Course Number	Course Title	Credits	Pre-requisites
ENGR 4900*	Senior Capstone (Spring only)	3	Senior standing, department approval
ENGR 4440*	Heat Transfer (Spring only)	3	ENGR 3410, ENGR 3343K
ENGR Elective*	Engineering Elective	3	varies
ENGR Elective*	Engineering Elective	3	varies
<b>Semester Total</b>		<b>12</b>	

Fourth Year Milestones
<ul style="list-style-type: none"> <li>• Submit Graduation Application to Office of Enrollment Services the semester before you intend to graduate.</li> <li>• Meet with your faculty advisor.</li> <li>• Polish resume with Career Services</li> <li>• Submit Graduate School Applications and/or apply for jobs</li> </ul>

Notes:

\* denotes grade of 'C' or higher required

*The Program Pathway is not a contract, neither expressed or implied, between the student and Dalton State College, but represents a flexible program of the current catalog's curriculum which may be altered at any time to carry out the academic objectives of the College.*

<b>Engineering Electives (choose 12 credits from the following)</b>	<b>Prerequisites</b>
ECON 4101 Applied Econometrics	MATH 1401 with a "C" or better.
ENGR 3317 Industrial Econ & Fin Analysis	MATH 2253
ENGR 4000 Special Topics in Engineering	A grade of 'C' or better in ENGR 2205 and permission of instructor
ENGR 4456 Intro to Systems Engineering	
ENGR 4860 Engineering Internship	90 credit hours and permission of instructor
FINC 3056 Principles of Finance	ACCT 2102, COMM 1110, ECON 2105, ECON 2106, ENGL 1102, MATH 1401, MATH 2253
ITEC 4700 Python Programming	MATH 1111
MNGT 3051 Principles of Management	BUSA 2106, COMM 1110, ECON 2105, ENGL 1102
MATH 4502 Statistics for Process Control	MATH2253 and MATH 1401
Any 3000-4000 level CHEM courses except CHEM 4000	varies
Any 3000-4000 level MATH courses except MATH 3703, MATH 3803, and MATH 4713	varies
Any 3000-4000 level SUST courses except SUST 4000	SUST 2000 or permission of instructor