

ENGINEERING TECHNOLOGY

BACHELOR OF APPLIED SCIENCE

Developed in consultation with local industry partners, the B.A.S. in Engineering Technology prepares students for careers in industrial settings. In this interdisciplinary program, students gain knowledge of both industrial and mechanical engineering concepts. Coursework is designed to provide students with knowledge and skills in fundamental areas including materials science, the strength of materials, thermodynamics, fluid dynamics, and systems engineering. Through completion of coursework, an internship, and a capstone design project, students obtain a blend of theoretical expertise and practical experience that prepares them for career success. This degree is also appropriate for students who already have a relevant Associate of Applied Science degree who wants to increase their knowledge, expertise, and career potential.

Program Course Requirements

Click here to view Core IMPACTS General Education Curriculum requirements (<http://catalog.daltonstate.edu/programs/coreimpacts/>).

Program Advice (can share with CORE curriculum):

CHEM 1211K	Principles of Chemistry I (Required)	4
MATH 1113	Precalculus Mathematics (Required)	3
MATH 1401	Elementary Statistics (Required)	3
PHYS 2211K	Principles of Physics I (Required)	4
ECON 2105	Principles of Macroeconomics (highly recommended for Social Science Elective)	3

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NOTE: Core IMPACTS courses can also satisfy requirements in your Program of Study. Please review the requirements for your major to prevent taking extra courses. The USG Core IMPACTS curriculum is designed to ensure that students acquire essential knowledge in foundational academic areas and develop career-ready competencies. There are seven Core IMPACTS areas. Students at all USG institutions must meet the Core IMPACTS requirements in all specified areas.

Engineering Prerequisites

(Grade of C or higher required)

ENGR 2205	Statics	3
MATH 2253	Calculus and Analytic Geom I	4
MATH 2254	Calculus and Analytic Geom II	4

Technical Courses

(Up to 20 approved credits from an AAS degree may be substituted for Technical Courses.)

CMPS 1371	Computing for Scien & Engineer	3
ENGR 2240	Dynamics	3
PHYS 2212K	Principles of Physics II	4
Electives (choose 3 – 4 courses)		10
ACCT 2101	Principles of Accounting I	
ACCT 2102	Principles of Accounting II	
BUSA 2106	The Environment of Business	

CHEM 1212K	Principles of Chemistry II
DATA 3355	Data Mining
DATA 3502	Data Architecture
DATA 3505	Data Management
DATA 3508	Data-Driven Decision Making
ECON 2105	Principles of Macroeconomics
ECON 2106	Principles of Microeconomics
ECON 4101	Applied Econometrics
ENGR 4000	Special Topics in Engineering **
ENGR 4860	Engineering Internship
FINC 3056	Principles of Finance
ITEC 4700	Python Programming
MATH 2255	Calculus and Analytic Geom III
MATH 2256	Introduction to Linear Algebra
MATH 2403	Differential Equations
MNGT 3051	Principles of Management
SUST 2000	Intro Envir Sustainability

Circuits Sequence

(8 credits of approved circuits courses with grades of C or better from an AAS degree may be substituted.)

ENGR 3301K	Circuits I	4
ENGR 3302K	Circuits II	4

Engineering Core

ENGR 3072K	Electrical Energy Systems	4
ENGR 3131K	Strength of Materials	4
ENGR 3343K	Fluid Mechanics	4
ENGR 3410	Thermodynamics	3
ENGR 3420	Industrial & Envir Safety	3
ENGR 4101	Materials Science&Engineering	3
ENGR 4440	Heat Transfer	3
ENGR 4900	Capstone	3

Engineering Electives 12

DATA 3355	Data Mining
DATA 3502	Data Architecture
DATA 3505	Data Management
DATA 3508	Data-Driven Decision Making
ECON 4101	Applied Econometrics
ENGR 3317	Industrial Econ & Fin Analysis
ENGR 4000	Special Topics in Engineering **
ENGR 4456	Intro to Systems Engineering
ENGR 4860	Engineering Internship
FINC 3056	Principles of Finance
ITEC 4700	Python Programming
MATH 4502	Statistics for Process Control
MNGT 3051	Principles of Management

Any 3000-4000 level CHEM courses except CHEM 4000.

Any 3000-4000 level MATH courses except MATH 3703, MATH 3803, and MATH 4713.

Any 3000-4000 level SUST courses except SUST 4000.

Total Hours 120

**ENGR 4000 may be repeated when topic differs for a maximum of 8 credit hours.