

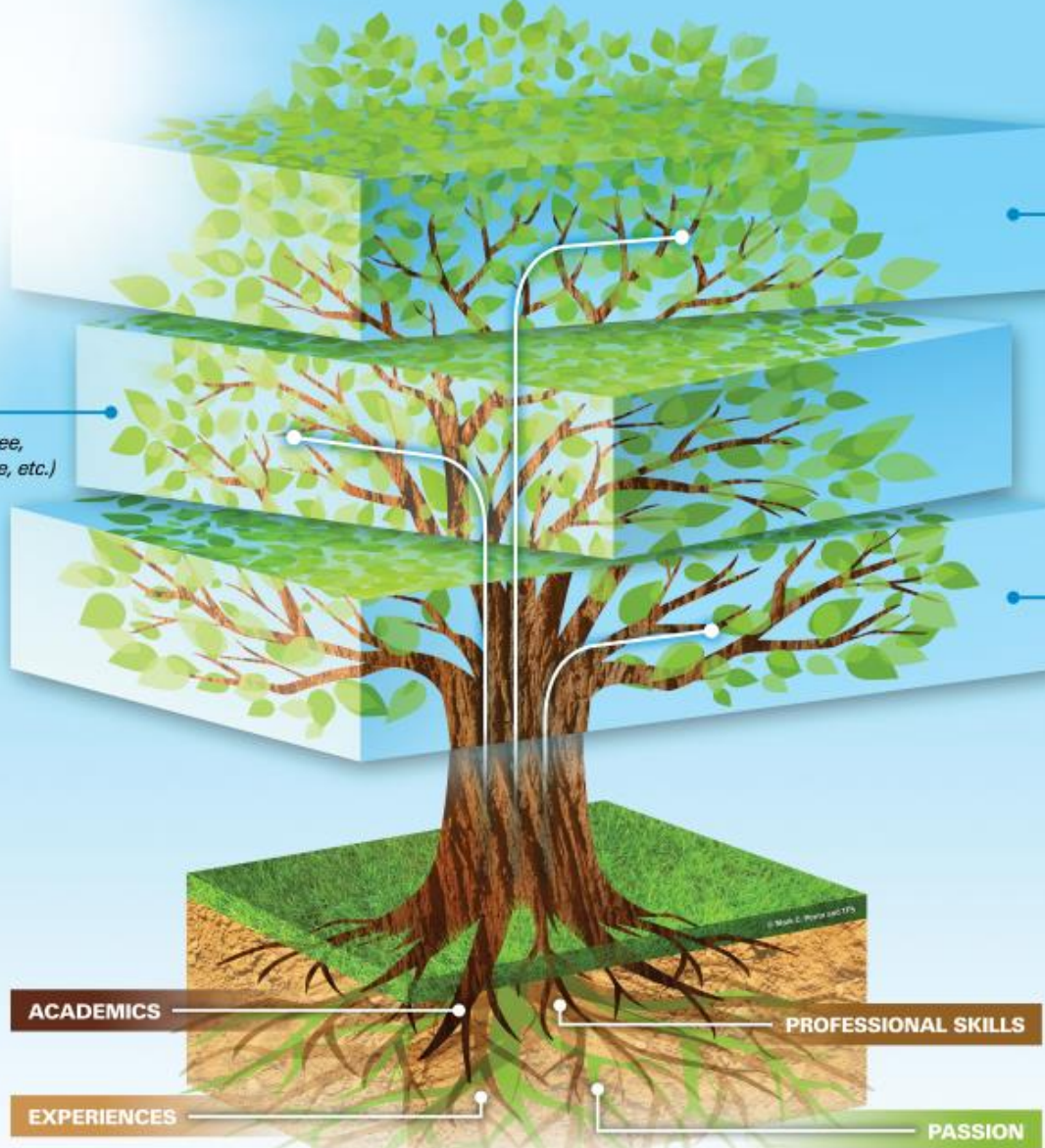
# EDUCATION WITH PURPOSE CAREER TREE



## TECHNICAL CAREERS

*(Apprenticeship, Associate's Degree, Advanced Certification, Experience, etc.)*

- Geological & Petroleum Technician
- Air Traffic Controller
- Project Manager
- Nuclear Technician
- Machinist
- Laboratory Technician
- Cyber Security Technician
- Process Technologist
- Surveyor
- Health and Safety Inspector
- IT Specialist
- Nurse



## PROFESSIONAL CAREERS

*(Bachelor's, Master's, Ph.D., Specialized Training, Experience, etc.)*

- Biomedical Engineer
- STEM Teacher
- Astronaut
- Geologist
- Electrical Engineer
- Chemical Engineer
- Petroleum Engineer
- Mechanical Engineer
- Civil Engineer
- Forensic Scientist
- Environmental Scientist
- Research Scientist

## ENTRY-LEVEL CAREERS

*(with Program Completion)*

- Apprenticeship
- STEM Activity Specialist
- Safety Technician
- Data Entry Specialist
- Military
- Installer Technician
- Academic Tutor
- CAD Draftsman
- Health Care Technician
- Engineering Assistant
- Project Controls Assistant
- Security Systems Technician

ACADEMICS

PROFESSIONAL SKILLS

EXPERIENCES

PASSION

# ENGINEERING



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# Engineering

## Entry-level Pathway, meets FNSBSD graduation requirements

9 <sup>th</sup>		10 <sup>th</sup>		11 <sup>th</sup>		12 <sup>th</sup>		Next Steps
	English 9	English 10	English 10	American Lit	English Elective	Literature	Professional Writ	Drafts Person Safety Technician Security System Tech. Engineer Assistant Project Control Asst. Data Entry
Earth Science	Earth Science	Biology	Biology	Science Elect	Science Elect	<i>Open Elective</i>	<i>Open Elective</i>	
Alg. 1.1/Alg I	Alg 1.2/Alg I	Alg 1.3 or Geometry	Alg 1.4 or Geometry	Math Elect	Math Elective	<i>Open Elective</i>	<i>Open Elective</i>	
Alaska Studies	Health	World Hist.	World Hist.	US History	US History	Government	Economics	
PE	PE	PE	<i>Open Elect.</i>	<i>Open Elect.</i>	<i>Open Elective</i>	<i>Open Elective</i>	<i>Open Elective</i>	
<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	

## Technical Pathway, meets FNSBSD graduation requirements and APS minimum course requirements

9 <sup>th</sup>		10 <sup>th</sup>		11 <sup>th</sup>		12 <sup>th</sup>		UAF CTC UAA CTC AVTECH UAS
English 9	English 9	English 10	English 10	American Lit	English Elective	Literature	Professional Writ	
Earth Science	Earth Science	Biology	Biology	Chemistry	Chemistry	Science Elective	Science Elective	
Algebra I**	Algebra I**	Geometry **	Geometry**	Algebra II**	Algebra II **	Math Elective**	Math Elective**	
Alaska Studies	SS Elective	World Hist.	World Hist.	US History	US History	Government	Economics	
PE	PE	PE	<i>Open Elect.</i>	<i>Open Elect.</i>	<i>Open Elective</i>	<i>Open Elective</i>	<i>Open Elective</i>	
<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	

## Professional Pathway, meets FNSBSD graduation requirements and APS minimum course requirements

9 <sup>th</sup>		10 <sup>th</sup>		11 <sup>th</sup>		12 <sup>th</sup>		UAF CTC UAA CTC UAS
English 9	English 9	English 10	English 10	American Lit	English Elective	Literature	Professional Writ	
Biology	Biology	Chemistry	Chemistry	Physics	Physics	Science Elective	Science Elective	
Algebra I	Algebra I	Geometry	Geometry	Algebra II	Algebra II	Math Elective	Math Elective	
Alaska Studies	SS Elective	World Hist.	World Hist.	US History	US History	Government	Economics	
PE	PE	PE	<i>Open Elect.</i>	<i>Open Elect.</i>	<i>Open Elective</i>	<i>Open Elective</i>	<i>Open Elective</i>	
<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	

## CTE Courses, Engineering (Courses may vary at each high school)

Foundation Courses	Pathway Courses	Pathway Courses	Capstone Courses	Dual Credit
Tools of Tech & Trade Drafting Careers and Employability Intro to Eng. & Design***	Introduction to Engineering & Robotics CAD Prin. of Engineering***	Auto Desk Inventor Digital Electronics***	<i>Process Technology*</i> Internship Aviation Civil Eng. & Arch.***	UAF CTC

\*Taught Off-Site

\*\*Alg 1.1/Alg 1.2   Alg 1.3/Alg 1.4   Geometry/Geometry   Algebra II/Algebra II

\*\*\*Project Lead The Way ONLY

# Aviation

## Entry-level Pathway, meets FNSBSD graduation requirements

9 <sup>th</sup>		10 <sup>th</sup>		11 <sup>th</sup>		12 <sup>th</sup>		Next Steps
	English 9	English 10	English 10	American Lit	English Elective	Literature	Professional Writ	Private Pilot Customer Service Refueler
Earth Science	Earth Science	Biology	Biology	Science Elect	Science Elect	<i>Open Elective</i>	<i>Open Elective</i>	
Alg. 1.1/Alg I	Alg 1.2/Alg I	Alg 1.3 or Geometry	Alg 1.4 or Geometry	Math Elect	Math Elective	<i>Open Elective</i>	<i>Open Elective</i>	
Alaska Studies	Health	World Hist.	World Hist.	US History	US History	Government	Economics	
PE	PE	PE	<i>Open Elect.</i>	<i>Open Elect.</i>	<i>Open Elective</i>	<i>Open Elective</i>	<i>Open Elective</i>	
<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	

## Technical Pathway, meets FNSBSD graduation requirements and APS minimum course requirements

9 <sup>th</sup>		10 <sup>th</sup>		11 <sup>th</sup>		12 <sup>th</sup>		UAF CTC UAA CTC AVTECH
English 9	English 9	English 10	English 10	American Lit	English Elective	Literature	Professional Writ	
Earth Science	Earth Science	Biology	Biology	Chemistry	Chemistry	Science Elective	Science Elective	
Algebra I**	Algebra I**	Geometry **	Geometry**	Algebra II**	Algebra II **	Math Elective**	Math Elective**	
Alaska Studies	SS Elective	World Hist.	World Hist.	US History	US History	Government	Economics	
PE	PE	PE	<i>Open Elect.</i>	<i>Open Elect.</i>	<i>Open Elective</i>	<i>Open Elective</i>	<i>Open Elective</i>	
<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	

## Professional Pathway, meets FNSBSD graduation requirements and APS minimum course requirements

9 <sup>th</sup>		10 <sup>th</sup>		11 <sup>th</sup>		12 <sup>th</sup>		UAF CTC UAA CTC
English 9	English 9	English 10	English 10	American Lit	English Elective	Literature	Professional Writ	
Biology	Biology	Chemistry	Chemistry	Physics	Physics	Science Elective	Science Elective	
Algebra I	Algebra I	Geometry	Geometry	Algebra II	Algebra II	Math Elective	Math Elective	
Alaska Studies	SS Elective	World Hist.	World Hist.	US History	US History	Government	Economics	
PE	PE	PE	<i>Open Elect.</i>	<i>Open Elect.</i>	<i>Open Elective</i>	<i>Open Elective</i>	<i>Open Elective</i>	
<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	<b>CTE Course</b>	

## CTE Courses, Aviation (Courses may vary at each high school)

Foundation Courses	Pathway Courses	Pathway Courses	Capstone Courses	Dual Credit
Tools of Tech & Trade Drafting Careers and Employability	CAD	Small Engines	Internship Aviation	

\*\*Alg 1.1/Alg 1.2   Alg 1.3/Alg 1.4   Geometry/Geometry   Algebra II/Algebra II