

# Cluster: Science, Technology, Engineering & Mathematics

## Pathway: Engineering and Technology



### Nebraska Sample Personal Learning Plan

School Counseling	Education Levels	Grade	English/ Language Arts	Math	Science	Social Studies	Nebraska Career Education Program of Study	Requirements & Electives	Extended Learning School/Community Activities		
<p><b>Preparing all student for lifelong learning, learning and living.</b></p> <ul style="list-style-type: none"> <li>• Career Development using NCE model</li> <li>• Academic/Career counseling</li> <li>• Assessments of interests, skills, college &amp; career readiness</li> <li>• Goal setting</li> <li>• Personal Learning Plans</li> <li>• Extended learning</li> <li>• Parental involvement</li> <li>• Programs of Study</li> <li>• Postsecondary credit</li> <li>• Seamless transitions to college &amp; careers</li> </ul>	MIDDLE SCHOOL	7	English 7	Math 7	Science 7	Social Studies 7	NCE C4C Curriculum for Careers Keyboarding Applications Computer Applications Exploring Industrial, Manufacturing, and Engineering Systems Technology Education Gateway to Technology	World Languages & Cultures Physical Education Health Education Exploration of Entrepreneurship	<p><b>School Activities:</b></p> <ul style="list-style-type: none"> <li>▶ SkillsUSA</li> <li>▶ OPPD/NPPD PowerDrive</li> <li>▶ Math Club</li> <li>▶ Mathematic Student Competitions</li> <li>▶ TEAMS (Tests of Engineering Aptitude, Mathematics, and Science)</li> <li>▶ Discover Engineering Day</li> <li>▶ Science Club</li> <li>▶ Science Fairs</li> </ul> <p><b>Community Activities:</b></p> <ul style="list-style-type: none"> <li>▶ Participate in the following Programs and Activities provided by the University of Nebraska:                             <ul style="list-style-type: none"> <li>• Engineers Week</li> <li>• Academy of Excellence</li> <li>• MESA (Mathematics, Engineering, Science Achievement) Program</li> </ul> </li> <li>▶ Participate in a Summer Learn-in Adventure</li> <li>▶ Join professional organizations in this career cluster</li> <li>▶ Part-time employment available within this career cluster</li> <li>▶ Internships available within this career cluster</li> </ul>		
		8	English 8	Math 8 or Algebra I	Science 8	Social Studies 8					
	SECONDARY	9	English/ Language Arts I	Algebra I or Geometry	Biology	Geography	Principles of Engineering <b>or</b> Intro to Engineering Design	World Languages & Cultures Physical Education Health Education Entrepreneurship CAD (Computer Aided Drafting) Engineering Technology Industrial Technology Information Technology Applications I			
		10	English/ Language Arts II	Geometry or Algebra II	Chemistry	World History	<b>Plus two from the following:</b> Computer Integrated Manufacturing Civil Engineering & Architecture Engineering Design & Development Aerospace Engineering Biotechnical Engineering				
		11	English/ Language Arts III	Algebra II or Trigonometry Pre-Cal or Stats.	Physics	American History					
		12	English/ Language Arts IV	Intro to Statistics Discrete/Finite Math Pre-Calc	AP Science or Structured Comp. Program Lang.	American Govt. or Economics					
	POSTSECONDARY	A sample of postsecondary courses that may be offered or required is provided as a guide. Required courses vary by postsecondary institution. As Nebraska develops stronger statewide connections between secondary and postsecondary, the options will be updated.									
		Year 13	English Composition English Literature	College Algebra or Trigonometry Calculus I & II	Chemistry Physics I	Psychology Global Issues	Engineering Analysis Engineering Design				
		Year 14	Speech/Oral Communication Tech. Writing	Intro to Differential Equations Calculus III	Physics II Biological Science	American History Sociology; Ethics & Lgl. Issues	Engineering Processes				
		Year 15	Continue courses in area of specialization					Continue courses in area of specialization			
		Year 16	Continue courses in area of specialization					Complete Engineering & Technology Major (4-Year Degree Program)			

This sample Personal Learning Plan is designed for continued use throughout the lifetime of the individual using it.