



# Master of Education Program - Concentration in Technology Education (Tech Ed)

MED-EDUC-TECH | programcodes

Valley City State University (VCSU) has designed this concentration for primary and secondary level educators wishing to pursue a master's degree in Technology Education or Career and Technical Education. Curriculum in the courses is set up to be consistent with the Standards for Technological Literacy defined by the International Technology and Engineering Educators Association (ITEEA) as well as the North Dakota Department of Career and Technical Education.

## Course Rotation

### TECHNOLOGY EDUCATION

OPTION 1	SECONDARY STEM EDUCATION				
<b>CORE</b>	<b>12 hours</b>				
EDUC 610	Research in Education (3)	Fall	Spring	Summer	
EDUC 625	Issues in School, Community, and Family (3)	Fall	Spring	Summer	
EDUC 640	Supervision and Assessment of Teachers & Learners (3)		Spring	Summer	
EDUC 657	Exceptionality, Diversity, and Difference (3)	Fall	Spring		
<b>REQUIRED</b>	<b>18 hours</b>				
TECH 675	Research and Assessment in Tech Ed (3)		Spring		
STEMED 650	Standards-Based Curriculum and Methods (3)	Fall			
STEMED 660	Design for Engineering (3)	Fall			
STEM ED 665	Invention and Innovation (3)			Summer	
STEMED 670	Design, Technology and Engineering for Elem (3)		Spring		
STEMED 680	Building Math (3)			Summer	
or					
STEMED 682	Engineering the Future (3)		Spring		
<b>ELECTIVES</b>	<b>3 hours</b>				
TECH 688	Safety and Management in the Tech Lab (3)			Summer	
EDUC 635	Technology for Learning (3)		Spring		
<b>SPECIAL PROGRAM</b>	<b>3 hours</b>				
TECH 689	Research Application (1)	Fall	Spring	Summer	
TECH 698	Capstone (2)	Fall	Spring	Summer	

#### Secondary STEM Education Option

FALL Program of Study					
FALL	SPRING	SUMMER	FALL	SPRING	SUMMER
EDUC 610	EDUC 657	STEMED 680	EDUC 625	EDUC 640	TECH 698
STEMED 650	TECH 675	STEMED 665	STEMED 660	STEMED 670	TECH 689
	STEMED 682	EDUC 625	EDUC 657		TECH 688

\*The fall program of study has the option to take STEMED 682 or 680, but use the courses grouped by color.

SPRING Program of Study					
SPRING	SUMMER	FALL	SPRING	SUMMER	FALL
EDUC 610	EDUC 625	EDUC 657	EDUC 640	STEMED 680	TECH 698
STEM ED 670	STEMED 665	STEMED 650	TECH 675	TECH 688	TECH 689
					STEMED 660

SUMMER Program of Study					
SUMMER	FALL	SPRING	SUMMER	FALL	SPRING
EDUC 610	EDUC 657	TECH 675	STEMED 680	EDUC 625	TECH 698
STEMED 665	STEMED 650	EDUC 640	TECH 688	STEMED 660	TECH 689
		or			STEMED 670 or
		STEMED 670			EDUC 640

### TECHNOLOGY EDUCATION

OPTION 2	ELEMENTARY STEM EDUCATION				
<b>CORE</b>	<b>12 hours</b>				
EDUC 610	Research in Education (3)	Fall	Spring	Summer	
EDUC 625	Issues in School, Community, and Family (3)	Fall		Summer	
EDUC 640	Supervision and Assessment of Teachers & Learners (3)		Spring	Summer	
EDUC 657	Exceptionality, Diversity, and Difference (3)	Fall	Spring		
<b>REQUIRED</b>	<b>15 hours</b>				
TECH 675	Research and Assessment in Tech Ed (3)		Spring		
STEMED 655	STEM Curriculum, and Methods, Elementary (3)	Fall			
STEMED 670	Design, Technology, and Engineering for Elem (3)		Spring		
STEMED 671	Inquiry Based Thematic Instruction (3)	Fall			
STEMED 680	Building Math (3)			Summer	
<b>ELECTIVES</b>	<b>6 hours</b>				
TECH 688	Safety and Management in the Tech Lab (3)			Summer	
STEM ED 665	Invention and Innovation			Summer	
EDUC 635	Technology for Learning (3)		Spring		
<b>SPECIAL PROGRAM</b>	<b>3 hours</b>				
TECH 689	Research Application (1)	Fall	Spring	Summer	
TECH 698	Capstone (2)	Fall	Spring	Summer	

#### Elementary STEM Education Option

FALL Program of Study					
FALL	SPRING	SUMMER	FALL	SPRING	SUMMER
EDUC 610	EDUC 640	STEMED 680	EDUC 625	EDUC 657	TECH 698
STEMED 655	TECH 675	STEMED 665 or TECH 688	STEMED 671	STEMED 670	TECH 689
					STEMED 665 or TECH 688

SPRING Program of Study					
SPRING	SUMMER	FALL	SPRING	SUMMER	FALL
STEMED 610	EDUC 640	STEMED 671	EDUC 657	STEMED 665	TECH 698
STEM ED 670	STEMED 680	STEMED 655	TECH 675	TECH 688	TECH 689
					EDUC 625

SUMMER Program of Study					
SUMMER	FALL	SPRING	SUMMER	FALL	SPRING
STEMED 680	EDUC 610	TECH 675	EDUC 640	EDUC 625	TECH 698
STEMED 665 or TECH 688	STEMED 655	EDUC 657 or STEMED 670	STEMED 665 or TECH 688	STEMED 671	TECH 689
					EDUC 657 or STEMED 670



## TECHNOLOGY EDUCATION

OPTION 3	CAREER AND TECHNICAL EDUCATION				
<b>CORE</b>	<b>12 hours</b>				
EDUC 610	Research in Education (3)	Fall		Summer	
EDUC 625	Issues in School, Community, and Family (3)	Fall	Spring	Summer	
EDUC 640	Supervision and Assessment of Teachers & Learners (3)		Spring	Summer	
EDUC 657	Exceptionality, Diversity, and Difference (3)	Fall	Spring		
<b>REQUIRED</b>	<b>15 hours</b>				
TECH 675	Research and Assessment in Tech Ed (3)		Spring		
TECH 651	Curriculum Development in CTE (3)		Spring (even)		
TECH 652	Instructional Strategies in Training & Occupational Ed (3)		Spring (odd)		
TECH 653	Trends and Issues in Occupational Ed (3)	Fall			
TECH 654	Admin. And Management in CTE (3)			Summer	
<b>ELECTIVES</b>	<b>6 hours</b>				
STEMED 680	Building Math (3)			Summer	
STEMED 682	Engineering the Future (3)		Spring		
STEMED 660	Design for Engineering (3)	Fall			
STEMED 665	Invention and Innovation (3)			Summer	
TECH 688	Safety and Management in the Tech Lab (3)			Summer	
EDUC 635	Technology for Learning (3)		Spring		
<b>SPECIAL PROGRAM</b>	<b>3 hours</b>				
TECH 689	Research Application (1)	Fall	Spring	Summer	
TECH 698	Capstone (2)	Fall	Spring	Summer	

### Career and Technical Education Option

FALL Program of Study					
FALL	SPRING	SUMMER	FALL	SPRING	SUMMER
EDUC 610	TECH 651	TECH 654	EDUC 657	TECH 652	TECH 698
TECH 653	TECH 675	EDUC 640	STEMED 660 or EDUC 625	EDUC 625 or STEMED 682	TECH 689
					TECH 688 or STEMED 680 or STEMED 665

SPRING Program of Study					
SPRING	SUMMER	FALL	SPRING	SUMMER	FALL
TECH 651	TECH 654	TECH 653	TECH 652	EDUC 640	TECH 698
EDUC 657	EDUC 610	EDUC 625	TECH 675	TECH 688, or STEMED 665 or STEMED 680	TECH 689
					STEMED 660

SUMMER Program of Study					
SUMMER	FALL	SPRING	SUMMER	FALL	SPRING
EDUC 610	TECH 653	TECH 651	EDUC 640	EDUC 657	TECH 698
TECH 654	EDUC 625	TECH 675	TECH 688 or STEMED 665 or STEMED 680	STEMED 660	TECH 689
					TECH 652