



# Master of Education Program - Concentration in Teaching & Technology (T&T)

VCSU has designed this concentration for teachers at either primary or secondary levels wishing to pursue a master's degree. It is a unique program, not only in the state, but also in the country. Curriculum focuses on the use of technologies to enrich teaching and learning and provides content specific course work in some subject areas.

Options are available with focused content that includes: Teaching and Learning, Communication, History Education, Health and Physical Education, Mathematics Education, Teacher Leadership, and Biology Education. Curriculum in this concentration is set up to provide students with an understanding of the National Educational Technology Standards (NETS) as defined by the International Society for Technology in Education (ISTE).

## Course Rotation

### TEACHING AND TECHNOLOGY (Teaching & Learning)

OPTION 1	TEACHING & LEARNING			
<b>CORE</b>	<b>14 hours</b>		<b>Fall</b>	<b>Spring</b> <b>Summer</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
EDUC 698	Capstone (2)		Fall	Spring   Summer
<b>REQUIRED</b>	<b>13 hours</b>			
EDUC 635	Technology for Learning (3)			Spring
EDUC 650	Field Design and Implementation (3)		Fall	
EDUC 675	Teaching with 21st Century Tools (3)			Summer
EDUC 685	Action Research in Education (3)		Fall	Spring
EDUC 689	Research Application (1)		Fall	Spring   Summer
<b>ELECTIVES</b>	<b>6 hours</b>			
EDUC 642	Supervision of Student Teachers (3)			Summer
EDUC 665	Learning Theory and Instructional Design (3)		Fall	
STEMED 660	Design for Engineering (3)		Fall	
STEMED 665	Invention and Innovation (3)			Summer
STEMED 670	Design, Technology, and Engineering for Elem (3)			Spring

#### FALL Program of Study

FALL	SPRING	SUMMER	FALL	SPRING	SUMMER
EDUC 610	EDUC 685	EDUC 675	EDUC 625	EDUC 657	EDUC 698
EDUC 665 or STEMED 660	EDUC 640	EDUC 642 or STEMED 665	EDUC 650	EDUC 635	EDUC 689

#### SPRING Program of Study

SPRING	SUMMER	FALL	SPRING	SUMMER	FALL
EDUC 610	EDUC 625	EDUC 685	EDUC 657	EDUC 640	EDUC 698
EDUC 635	EDUC 675	EDUC 650	STEMED 670	EDUC 642 or STEMED 665	EDUC 689

#### SUMMER Program of Study

SUMMER	FALL	SPRING	SUMMER	FALL	SPRING
EDUC 610	EDUC 685	EDUC 657	EDUC 640	EDUC 650	EDUC 698
EDUC 675	EDUC 665 or STEMED 660	EDUC 635	EDUC 642 or STEMED 665	EDUC 625	EDUC 689





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**TEACHING AND TECHNOLOGY (Health and PE Option)**

OPTION 4	HEALTH AND PHYSICAL EDUCATION				
<b>CORE</b>	<b>14 hours</b>		Fall	Spring	Summer
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	
EDUC 698	Capstone (2)		Fall	Spring	Summer
<b>REQUIRED</b>	<b>22 hours</b>				
HPER 610	Motor Learning (3)		Fall		
HPER 620	Current Literature in Health and Phys. Educ.(3)			Spring	
HPER 630	Advanced Developmental Adapted Phys. Educ. (3)				Summer
HPER 640	Advanced Techniques in Teaching Health and Phys. Ed. (3)	Fall			
HPER 650	Curriculum Development and Eval. In Health and PE (3)			Spring	
HPER 660	Leadership and Supervision in Health and Phys. Ed. (3)				Summer
EDUC 685	Action Research (3)		Fall	Spring	
EDUC 689	Research Application (1)		Fall	Spring	Summer

**FALL Program of Study**

FALL	SPRING	SUMMER	FALL	SPRING	SUMMER
EDUC 610	EDUC 685	EDUC 640	EDUC 625	EDUC 657	EDUC 698
HPER 610	HPER 620	HPER 630	HPER 640	HPER 650	EDUC 689
					HPER 660

**SPRING Program of Study**

SPRING	SUMMER	FALL	SPRING	SUMMER	FALL
EDUC 610	EDUC 625	EDUC 685	EDUC 657	EDUC 640	EDUC 698
HPER 620	HPER 630	HPER 610	HPER 650	HPER 660	EDUC 689
					HPER 640

**SUMMER Program of Study**

SUMMER	FALL	SPRING	SUMMER	FALL	SPRING
EDUC 610	EDUC 685	EDUC 657	EDUC 640	EDUC 625	EDUC 698
HPER 630	HPER 610	HPER 620	HPER 660	HPER 640	EDUC 689
					HPER 650

**TEACHING AND TECHNOLOGY (Mathematics Option)**

OPTION 5	MATHEMATICS				
<b>CORE</b>	<b>14 hours</b>		Fall	Spring	Summer
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	
EDUC 698	Capstone (2)		Fall	Spring	Summer
<b>REQUIRED</b>	<b>22 hours</b>				
MATH 613	Algebra for Teachers		Fall (odd)		
MATH 614	Geometry for Teachers			Spring (even)	
MATH 621	Probability & Statistics for Teachers				Summer (odd)
MATH 690	Trends, Methods, & Technology in Mathematics Educ.		Fall (even)		
MATH 608	History & Philosophy of Mathematics for Teachers			Spring (odd)	
MATH 665	Calculus for Teachers				Summer (even)
EDUC 685	Action Research (3)		Fall	Spring	
EDUC 689	Research Application (1)		Fall	Spring	Summer

**FALL Program of Study**

	FALL (e)	SPRING (o)	SUMMER (o)	FALL (o)	SPRING (e)	SUMMER (e)
Even year start	EDUC 610	EDUC 685	EDUC 625	EDUC 657	EDUC 640	MATH 665
	MATH 690	MATH 608	MATH 621	MATH 613	MATH 614	EDUC 689
						EDUC 698
Odd year start	FALL (o)	SPRING (e)	SUMMER (e)	FALL (e)	SPRING (o)	SUMMER (o)
	EDUC 610	EDUC 685	EDUC 625	EDUC 657	EDUC 640	MATH 621
	MATH 613	MATH 614	MATH 665	MATH 690	MATH 608	EDUC 689
						EDUC 698

**SPRING Program of Study**

	SPRING (e)	SUMMER (e)	FALL (e)	SPRING (o)	SUMMER (o)	FALL (o)
Even year start	EDUC 657	EDUC 610	EDUC 685	EDUC 640	EDUC 625	MATH 613
	MATH 614	MATH 665	MATH 690	MATH 608	MATH 621	EDUC 689
						EDUC 698
Odd year start	SPRING (o)	SUMMER (o)	FALL (o)	SPRING (e)	SUMMER (e)	FALL (e)
	EDUC 657	EDUC 610	EDUC 685	EDUC 640	EDUC 625	MATH 690
	MATH 608	MATH 621	MATH 613	MATH 614	MATH 665	EDUC 689
						EDUC 698

**SUMMER Program of Study**

	SUMMER (o)	FALL (e)	SPRING (o)	SUMMER (o)	FALL (o)	SPRING (e)
Even year start	EDUC 610	EDUC 685	EDUC 640	EDUC 625	EDUC 657	MATH 614
	MATH 665	MATH 690	MATH 608	MATH 621	MATH 613	EDUC 689
						EDUC 698
Odd year start	SUMMER (o)	FALL (o)	SPRING (e)	SUMMER (e)	FALL (e)	SPRING (o)
	EDUC 610	EDUC 685	EDUC 640	EDUC 625	EDUC 657	MATH 608
	MATH 621	MATH 613	MATH 614	MATH 665	MATH 690	EDUC 689
						EDUC 698

**TEACHING AND TECHNOLOGY (Teacher Leadership)**

\* Course rotations determined by the academy leadership team

OPTION 6	TEACHER LEADERSHIP				
<b>CORE</b>	<b>14 hours</b>				
EDUC 610	Research in Education (3)				
EDUC 621	School Law and Organizational Structure of Education (3)				
EDUC 623	Personnel, Supervision and Staff Development (3)				
EDUC 657	Exceptionality, Diversity, and Difference (3)				
EDUC 688	Leadership Capstone (2)				
<b>REQUIRED</b>	<b>18 hours</b>				
EDUC 620	Leadership, Planning and Organizational Behavior (3)				
EDUC 622	Personal Communication and Ethics in Education (3)				
EDUC 630	Principles of Teaching and Learning Secondary (3)				
Or EDUC 631	Principles of Teaching and Learning Elementary (3)				
EDUC 635	Technology for Learning (3)				
EDUC 665	Learning Theory and Instructional Design (3)				
EDUC 685	Action Research in Education (3)				

**TEACHING AND TECHNOLOGY (Biology Option)**

OPTION 7	BIOLOGY				
<b>CORE</b>	<b>14 hours</b>		Fall	Spring	Summer
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	
EDUC 698	Capstone (2)		Fall	Spring	Summer
<b>REQUIRED</b>	<b>22 hours</b>				
BIOL 611	Botany (3)			Spring Odd	
BIOL 615	Genetics (3)				Summer Even
BIOL 640	Environmental Contaminants (3)		Fall Odd		
BIOL 641	Cell Biology (3)			Spring Even	
BIOL 647	Aquatic Entomology (3)		Fall Even		
BIOL 659	Evolution (3)				Summer Odd
EDUC 685	Action Research (3)		Fall	Spring	
EDUC 689	Research Application (1)		Fall	Spring	Summer

**FALL Program of Study**

	FALL (e)	SPRING (o)	SUMMER (o)	FALL (o)	SPRING (e)	SUMMER (e)
Even year start	EDUC 610	EDUC 685	EDUC 625	EDUC 657	EDUC 640	EDUC 698
	BIOL 647	BIOL 611	BIOL 659	BIOL 640	BIOL 641	EDUC 689
						BIOL 615

	FALL (o)	SPRING (e)	SUMMER (e)	FALL (e)	SPRING (o)	SUMMER (o)
Odd year start	EDUC 610	EDUC 685	EDUC 625	EDUC 657	EDUC 640	EDUC 698
	BIOL 640	BIOL 641	BIOL 615	BIOL 647	BIOL 611	EDUC 689
						BIOL 659

**SPRING Program of Study**

	SPRING (e)	SUMMER (e)	FALL (e)	SPRING (o)	SUMMER (o)	FALL (o)
Even year start	EDUC 610	EDUC 625	EDUC 685	EDUC 657	EDUC 640	EDUC 698
	BIOL 641	BIOL 615	BIOL 647	BIOL 611	BIOL 659	EDUC 689
						BIOL 640

	SPRING (o)	SUMMER (o)	FALL (o)	SPRING (e)	SUMMER (e)	FALL (e)
Odd year start	EDUC 610	EDUC 625	EDUC 685	EDUC 657	EDUC 640	EDUC 698
	BIOL 611	BIOL 659	BIOL 640	BIOL 641	BIOL 615	EDUC 689
						BIOL 647

**SUMMER Program of Study**

	SUMMER (e)	FALL (e)	SPRING (o)	SUMMER (o)	FALL (o)	SPRING (e)
Even year start	EDUC 610	EDUC 685	EDUC 640	EDUC 625	EDUC 657	EDUC 698
	BIOL 615	BIOL 647	BIOL 611	BIOL 659	BIOL 640	EDUC 689
						BIOL 641

	SUMMER (o)	FALL (o)	SPRING (e)	SUMMER (e)	FALL (e)	SPRING (o)
Odd year start	EDUC 610	EDUC 685	EDUC 640	EDUC 625	EDUC 657	EDUC 698
	BIOL 659	BIOL 640	BIOL 641	BIOL 615	BIOL 647	EDUC 689
						BIOL 611

**TEACHING AND TECHNOLOGY (Learner Centered Instruction)**

\* EDUC 615-619 rotations determined by Learner Centered Instruction Team

OPTION 8	LEARNER CENTERED INSTRUCTION				
<b>CORE</b>	<b>14 hours</b>		Fall	Spring	Summer
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	
EDUC 698	Capstone (2)		Fall	Spring	Summer
<b>REQUIRED</b>	<b>19 hours</b>				
EDUC 615	Learner Centered Systems (3)				
EDUC 616	The Performance Assessment Cycle (3)				
EDUC 617	Capacity to Transform (3)				
EDUC 618	Personalized Learning in Practice (3)				
EDUC 619	Designing for Deeper Learning (3)				
EDUC 685	Action Research in Education (3)		Fall	Spring	
EDUC 689	Research Application (1)		Fall	Spring	Summer



## **Core Values/Learning Outcomes**

1. Effective use of Instructional Technologies
2. Expertise in Research, particularly Action Research
3. Expertise in Assessment
4. Supervisor/Leader/Coach
5. Expertise in Curriculum/Instruction
6. Diversity/Global Awareness

The program's Core Values and National Board of Professional Teaching Standards lay the broad foundation for the overall program design. Specific objectives are then addressed in each course, based on its curriculum. At the course level, the required projects and activities provide a rich and diverse collection of opportunities for assessment of student knowledge and understanding by the professor.