Secondary Mathematics Education, BA

With Concurrent† Major in Mathematics

University of Wyoming, 2017-18

*The College of Education maintains rigorous admission standards to ensure the quality of preparation for future educators. **New, first time students** who meet the University of Wyoming's standards for admission may declare a major in elementary education, secondary or K-12 education in a specific content area, or education undecided provided they have a minimum ACT composite score of 21 and ACT math score of 21; a lower ACT math score can be replaced by a UW Math Placement Exam (MPE) score of 2 or higher. If electing to pursue education undecided, it is recommended that students decide on their teaching content area no later than the first semester of their sophomore year.*

Current UW students wishing to change their major, students seeking re-admission to UW, or those transferring to UW from another institution *can learn more about the specific admission requirements for these groups at www.uwyo.edu/ted/admission requirements.html.*

All students *must undergo and pass an initial criminal background check prior to full admission to the College of Education. Any costs associated with the background check are the responsibility of the student. A second background check is included as part of the state application process for the Wyoming Substitute Teaching Permit, which is required for admission to Phase II of UW's teacher education program. Criminal background checks are a standard for the profession.*

Freshman Fall Semester			Hrs	Min Grade	Notes
		USP First-Year Seminar	3	C	FY
		USP US & Wyoming Constitutions	3		V
ENGL	1010	College Composition and Rhetoric	3	C	C1
ITEC	2360	Teaching with Technology *	3	C	
MATH	2200	Calculus I **	4	C	Q
		Credit hours subtotal:	**16**		

Freshman Spring Semester			Hrs	Min Grade	Notes
		USP Physical & Natural World	3		PN
EDST	2450	Foundations Development & Learning	3	C	H; prerequisite of a 2.50 cumulative UW gpa.
MATH	2205	Calculus II	4	C	
		Statistics Course	4	C	Recommend STAT 2050 (Fundamentals of Stats) or STAT 2070 (Introductory Stats for the Social Sciences).
		Elective	3		Recommend a computer science course.
		Credit hours subtotal:	**17**		

Sophomore Fall Semester			Hrs	Min Grade	Notes
		USP Physical & Natural World	3		PN
EDEX	2484	Introduction to Special Education	3	C	Admission to Phase I of the program required. #
MATH	2210	Calculus III	4	C	
MATH	2250	Elementary Linear Algebra	3	C	
MATH	2800	Mathematics Major Seminar	2	S	Offered S/U only.
		Credit hours subtotal:	**15**		

Sophomore Spring Semester			Hrs	Min Grade	Notes
EDST	2480	Diversity and the Politics of Schooling	4	C	H; admission to Phase I of the program required. #
MATH	2310	Applied Differential Equations	3	C	
		Transitions course 1 of 3 ***	3	C	
		Transitions course 2 of 3 ***	3	C	
		Elective	3		Recommend a computer science course.
		Credit hours subtotal:	**16**		

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Junior Fall Semester			Hrs	Min Grade	Notes
EDST	3550	Educational Assessment	2	C	Prerequisite of a 2.75 cumulative UW gpa.
MATH	4300	Introduction to Mathematical Modeling	3	C	Recommended Breadth elective; options may exist - consult with an academic advisor
		Depth Sequence course 1 of 2 ****	3	C	
		Transitions course 3 of 3 ***	3	C	
		Elective	3		Recommend a computer science course.
		Credit hours subtotal:	**14**		

Junior Spring Semester			Hrs	Min Grade	Notes
EDST	3000	Teacher as Practitioner	6	C	C2; admission to Phase II of the program required. #
MATH	4000	History of Mathematics	3	C	
		Depth Sequence course 2 of 2 ****	3	C	
		Upper Division Math Elective	3	C	
		Credit hours subtotal:	**15**		

Senior Fall Semester			Hrs	Min Grade	Notes
EDSE	3271	Methods I: Secondary Mathematics Education	3	C	Admission to Phase IIIa of the program required. #
EDSE	4271	Methods II: Secondary Mathematics Education	4	C	C3; admission to Phase IIIa of the program required. #
MATH	4150	Secondary School on Campus	3	C	Concurrent enrollment in EDSE 4271 required.
MATH	4600	Foundations of Geometry	3	C	
		Credit hours subtotal:	**13**		

Senior Spring Semester			Hrs	Min Grade	Notes
EDSE	4500	Residency in Teaching	15	S	Admission to Phase IIIb of the program required; offered S/U only. #
		Credit hours subtotal:	**15**		

	TOTAL CREDIT HOURS:	**121**

This is a guide for course work in the major; actual course sequence may vary by student. Please refer to the online student degree evaluation, and consult with an academic advisor. • Not all courses are offered every semester and some electives may have prerequisites. Students should review the course descriptions in the *University Catalog* and consult with their academic advisor to plan accordingly.

University of Wyoming requirements:

Students must have a minimum cumulative GPA of 2.0 to graduate. • Students must complete 42 hours of upper division (3000-level or above) coursework, 30 of which must be from the University of Wyoming. • Courses must be taken for a letter grade unless offered only for S/U. • University Studies Program (USP) Human Culture (H) and Physical & Natural World (PN) courses must be taken outside of the major subject, but can be cross-listed with the major.

College of Education requirements:

This plan assumes student college readiness. Students should be able to start taking 1000-level courses the first semester of college. • All professional education courses must be completed with a grade of C or higher. Grades of C- or lower will not satisfy this requirement.

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† **Concurrent Majors.** Students may pursue a concurrent major in one or more colleges. Only one degree (BA, BS, etc.) will be awarded from the college of the primary major. All university curricular requirements, including the University Studies Program requirements, must be met only once. Requirements for secondary major/s will be established by the academic departments and may include college requirements, in addition to all major requirements. An academic advisor in each major is required and each adviser must review requirements. The degree will be granted on one date only and only one diploma will be awarded. Both majors will be indicated on the academic transcript and diploma.

\# **The Wyoming Teacher Education Program** operates in a series of phases: Phase I, Phase II, Phase IIIa, and Phase IIIb. Continuation in the program in any content area is dependent upon the successful completion of prerequisites for each phase. Specific information about these requirements can be found on the program sheets for each content area that are located at *www.uwyo.edu/ted/majors-and-program-sheets.*

Secondary Mathematics Education Program Notes:

• A minimum 2.5 gpa is required in major content. All major content courses must be completed with a grade of C or higher. Grades of C- or lower will not satisfy this requirement.

* The prerequisite of a 2.50 cumulative UW gpa is waived for new, incoming freshman having declared Education as their major.

** Requires MATH ACT $\geq$ 27, MATH SAT $\geq$ 600, Math Placement Exam $\geq$ 5, or $\geq$ C in MATH 1405 or 1450.

*** **Transition courses** introduce students to the three (3) main areas of mathematical research in the department. The first of the three (3) upper division transitions courses should be taken within the first four (4) semesters to enable the depth sequence (description follows) to be completed by the end of the junior year. To fulfill this requirement, mathematics majors must take:

MATH 3205   Elementary Real Analysis

MATH 3340   Introduction to Scientific Computing

MATH 3500   Algebra I: Introduction to Rings and Proofs

**** For **depth sequence courses**, a mathematics major must select one (1) two-course sequence that builds on one (1) of the transition courses. This sequence gives the student an opportunity to study one of these areas in greater depth. The two-course sequences are:

▪ MATH 4200 (Analysis 2: Advanced Analysis) and MATH 4205 (Analysis 3: Undergraduate Topics in Analysis)

▪ MATH 4340 (Numerical Methods for Ordinary and Partial Differential Equations) and MATH 4440 (Introduction to Partial Differential Equations)

▪ MATH 4510 (Algebra II: Introduction to Group Theory) and MATH 4520 (Algebra III: Topics in Abstract Algebra)