SECONDARY EDUCATION: MATHEMATICS BA/BS

The Teacher Education program prepares candidates for certification in grades K-12. The Secondary Education program requires 26 credits of Education course work in professional foundations and studies and 13 credits during internship. Students apply for admission to the program after successfully completing nine credits of Education course work in professional foundations. During the course of these studies, candidates may be asked to reapply to the program if their GPA falls below 3.0.

Students in the Teacher Education Certification program are expected to provide evidence through performance that they have met Idaho's requirements for certification and become dedicated and knowledgeable professionals, content specialists, competent educational designers, capable educational facilitators, insightful educational evaluators, reflective professionals, and culturally responsive professionals before being recommended for teacher certification.

Teaching endorsement areas are attached to a Standard Instructional Certificate (grades K-12), according to Idaho Teacher Certification standards. All endorsements require a minimum of 45 semester credits, with the exception of dual endorsements where 30 semester credits for a major endorsement and 20 semester credits for a minor endorsement is required. The following LC State areas are approved for teaching field majors: Biology, Chemistry, Communication Arts, Earth Science, English; Kinesiology (Physical Education & Health); Mathematics; Natural Sciences; Psychology; and Social Science with a History emphasis (see degree requirements for each major). Teacher candidates must successfully pass the related Praxis II exam in their teaching content area(s).

For marketability purposes, students are encouraged to pursue endorsements and minors in a second teaching field; consult with an advisor for the proper procedure. Secondary Education majors must have a content area advisor and a Secondary Education advisor.

Graduates from other colleges or universities seeking secondary teacher certification must fulfill all Secondary Education professional course work requirements in addition to meeting all academic major or minor teaching field requirements for subject area endorsement.

Program Outcomes

All Educators will...

1. Understand ~~Program Outcomes1. The program completer understands~~ how learners grow and develop, recognize ~~recognizing~~ that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and be able to design ~~designs~~ and implement ~~implements~~ developmentally appropriate and challenging learning experiences.

2. Use their ~~2. The program completer uses~~ understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.

3. Work ~~3. The program completer works~~ with others to create environments that support individual and collaborative learning ~~learning,~~ and that encourage positive social interaction, active engagement in learning, and self-motivation. ~~self motivation.~~

4. Understand ~~4. The program completer understands~~ the central concepts, tools of inquiry, and structures of the discipline(s) they teach ~~he or she teaches~~ and will know how to create ~~creates~~ learning experiences that make the discipline accessible and meaningful for learners to ~~to~~ assure mastery of the content.

5. Understand ~~5. The program completer understands~~ how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.

6. Understand ~~6. The program completer understands~~ and use ~~uses~~ multiple methods of assessment to engage learners in their own growth, ~~to~~ monitor learner progress, and ~~to~~ guide the ~~teacher's and learner's~~ decision making of both teacher and learner. ~~making.~~

7. Know how to plan ~~7. The program completer plans~~ instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.

8. Understand ~~8. The program completer understands~~ and use ~~uses~~ a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, as well as ~~and to~~ build skills to apply knowledge in meaningful ways.

9. Know how to engage ~~9. The program completer engages~~ in ongoing professional learning and use ~~uses~~ evidence to ~~to~~ continually evaluate your ~~his/her~~ practice, particularly the effects of your ~~his/her~~ choices and actions on others (learners, families, other professionals, and the community) ~~community),~~ and adapt ~~adapts~~ practice to ~~to~~ meet the needs of each learner.

10. Develop a desire ~~10. The program completer seeks appropriate leadership roles and opportunities~~ to seek appropriate leadership roles and opportunities ~~take responsibility for student learning,~~ to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ~~to~~ ensure learner growth, and to ~~to~~ advance the profession.

11. Be ~~The program completer should be~~ able to distinguish between each of the federally recognized tribes with respect to the retention of their ancestral lands in Idaho: Coeur d'Alene ~~d'Alene~~ Tribe, Kootenai Tribe of Idaho, Nez ~~New~~ Perce Tribe, Shoshone-Bannock Tribes, and the Shoshone-

Paiute Tribes. They will ~~Program completes~~ build capacity in learners to utilize the assets that each learner brings to the learning community based on their backgrounds and experiences. ~~experiences.~~

12. Understand ~~The program completer understands~~ the Code of Ethics for Idaho Professional Educators and its place in supporting the integrity of the profession. ~~profession.~~

13. Know ~~The program completer knows~~ how to use digital technology to create lessons and facilitate instruction and assessment in face-to-face, blended, and online learning environments to engage students and enhance learning.

Literacy Program Outcomes

14. Understand the importance of automatic word recognition, reading fluency, reading comprehension, and motivation to read; the impact of vocabulary knowledge in oral and written language comprehension; and factors that contribute to deep listening and reading comprehension.

15. Understand the benefit of incorporating writing in the content areas. They will know how to incorporate ethical and credible research practices into instruction.

16. Understand how reading and writing difficulties vary in presentation and degree. You will understand the characteristics of struggling readers and writers, know how to identify appropriate accommodations, and adapt instruction to meet student needs.

General Education Requirements

Code	Title	Credits
Written Communication		
Select one of the following:		6.00
ENGL-101 & ENGL-102	WRITING AND RHETORIC I and WRITING AND RHETORIC II	
ENGL-109	COLLEGE WRITING AND RESEARCH	
Oral Communication		
Select one from the following:		3.00
COMM-101	FUNDAMENTALS OF ORAL COMMUNICATION	
COMM-203	SMALL GROUP COMMUNICATION	
COMM-204	PUBLIC SPEAKING	
Mathematical Ways of Knowing		
Select one of the following:		3.00-5.00
MATH-143	PRECALCULUS I: ALGEBRA	
MATH-147	PRECALCULUS	
MATH-170	CALCULUS I	
Humanistic & Artistic Ways of Knowing		
Select one course from two categories:		6.00-7.00
Literature		
ENGL-175	LITERATURE AND IDEAS	
ENGL-257	WORLD CLASSICS	
ENGL-258	INTERNATIONAL LITERATURE	
ENGL-260	NATIVE AMERICAN LITERATURE	
ENGL-261	MYTHOLOGIES	
Arts		
ART-100	INTRODUCTION TO ART	
HUM-101	THE ART AND HISTORY OF THE MOTION PICTURE	
HUM-150	INTRODUCTION TO THE ARTS	
MUS-101	SURVEY OF MUSIC	
MUS-102	MUSIC IN AMERICA	
MUS-150	WORLD MUSIC	
MUS-151	HISTORY OF MUSICAL THEATER	
MUS-152	HISTORY OF JAZZ AND POPULAR MUSIC STYLES	
THEA-101	SURVEY OF THE THEATER	
Language		

NP-101	NEZ PERCE LANGUAGE AND CULTURE	
NP-102	NEZ PERCE LANGUAGE AND HISTORY	
SPAN-101	ELEMENTARY SPANISH I	
SPAN-102	ELEMENTARY SPANISH II	
Scientific Ways of Knowing		
PHYS-211	PHYSICS FOR SCIENTISTS AND ENGINEERS I	5.00
Select one of the following:		3.00-4.00
BIOF-100	INTRODUCTION TO BIOINFORMATICS	
BIOL-100	CONCEPTS OF BIOLOGY	
BIOL-120	PLANTS AND PEOPLE	
BIOL-123	BIOLOGY IN FILM	
BIOL-175	HUMAN BIOLOGY	
BIOL-227	HUMAN ANATOMY AND PHYSIOLOGY I	
CHEM-100	CONCEPTS OF CHEMISTRY	
CHEM-105	GENERAL, ORGANIC AND BIOCHEMISTRY	
CHEM-111	PRINCIPLES OF CHEMISTRY I	
ENGR-108	SEMICONDUCTORS, SCIENCE, AND SOCIETY	
FSCI-101	INTRODUCTION TO FORENSIC SCIENCE	
GEOL-101	PHYSICAL GEOLOGY	
GEOL-120	INTRODUCTION TO EARTH SYSTEMS	
GIS-271	GEOGRAPHIC INFORMATION SYSTEMS	
ID-240	INTEGRATED SCIENCE II	
NS-140	INTEGRATED SCIENCE I	
NS-150	INTRODUCTION TO NATURAL SCIENCES	
NS-174	NATURAL SCIENCE FOR ELEMENTARY EDUCATOR	
PHYS-111	GENERAL PHYSICS I	
or PHYS-112	GENERAL PHYSICS II	
PHYS-171	PHYS SCIENCES FOR ELEMENTARY EDUCATORS	
PHYS-205	DESCRIPTIVE ASTRONOMY	
Social & Behavioral Ways of Knowing		
PSYC-205	LIFESPAN DEVELOPMENTAL PSYCHOLOGY	3.00
Select one of the following:		3.00
ANTH-102	CULTURAL ANTHROPOLOGY	
ANTH-120	WORLD PREHISTORY	
ANTH-170	INTRODUCTION TO NATIVE AMERICAN STUDIES	
ECON-201	PRINCIPLES OF MACROECONOMICS	
ECON-202	PRINCIPLES OF MICROECONOMICS	
GEOG-102	INTRODUCTION TO GEOGRAPHY	
HIST-101	WORLD HISTORY I	
HIST-102	WORLD HISTORY II	
HIST-111	UNITED STATES HISTORY I	
HIST-112	UNITED STATES HISTORY II	
HRPT-184	DIVERSITY IN ORGANIZATIONS	
HRPT-185	HUMAN RELATIONS IN ORGANIZATIONS	
POLS-101	AMERICAN NATIONAL GOVERNMENT	
POLS-237	INTERNATIONAL POLITICS	
POLS-285	COMPARATIVE GOVERNMENT	
SOC-101	INTRODUCTION TO SOCIOLOGY	
SOC-102	SOCIAL PROBLEMS	
SS-184	DIVERSITY IN ORGANIZATIONS	
SS-185	HUMAN RELATIONS IN ORGANIZATIONS	
Global Perspectives		

Select one of the following:		3.00-4.00
ANTH-102	CULTURAL ANTHROPOLOGY	
ANTH-120	WORLD PREHISTORY	
ANTH-170	INTRODUCTION TO NATIVE AMERICAN STUDIES	
ANTH-360	RACE AND ETHNICITY	
COMM-345	INTERCULTURAL COMMUNICATION	
ENGL-258	INTERNATIONAL LITERATURE	
ENGL-474	NATIVE AMERICAN WRITTEN LITERATURE	
GEOG-102	INTRODUCTION TO GEOGRAPHY	
HIST-101	WORLD HISTORY I	
HIST-102	WORLD HISTORY II	
HIST-111	UNITED STATES HISTORY I	
HIST-112	UNITED STATES HISTORY II	
HRPT-184	DIVERSITY IN ORGANIZATIONS	
ID-300C	ETHICS AND IDENTITY	
KIN-220	SOCIAL-CULTURAL ASPECTS OF SPORTS	
NP-101	NEZ PERCE LANGUAGE AND CULTURE	
NP-102	NEZ PERCE LANGUAGE AND HISTORY	
POLS-285	COMPARATIVE GOVERNMENT	
SOC-101	INTRODUCTION TO SOCIOLOGY	
SPAN-101	ELEMENTARY SPANISH I	
SPAN-102	ELEMENTARY SPANISH II	
SPAN-201	INTERMEDIATE SPANISH I	
SPAN-202	INTERMEDIATE SPANISH II	
SS-184	DIVERSITY IN ORGANIZATIONS	
Integrative Seminar: Ethics & Values		
Select one of the following:		3.00
ID 300A - 300Z (see course descriptions for options)		
ID-301A	HELLS CANYON INSTITUTE	
Foreign/Heritage Language		
Select 16 credits of language if selecting Bachelor of Arts Degree		16.00
Total Credits		**38.00-43.00**

Program Requirements

Secondary certification candidates must meet the graduation requirements for their major and the Secondary Teacher Education Program and must have two advisors. (see below)

Code	Title	Credits
Mathematics Program - Lower Division		
CS-111	COMPUTER SCIENCE 1	4.00
MATH-144	PRECALCULUS II: TRIGONOMETRY (Required if not taken as core)	2.00
MATH-170	CALCULUS I (Required if not taken as core)	4.00
MATH-175	CALCULUS II	4.00
MATH-186	DISCRETE MATHEMATICS	3.00
MATH-253	STATISTICAL METHODS FOR THE SCIENCES	3.00
MATH-275	CALCULUS III	4.00
MATH-300	INTRODUCTION TO MATHEMATICAL REASONING	3.00
MATH-320	PROBABILITY AND STATISTICS	3.00
MATH-340	LINEAR ALGEBRA	3.00
MATH-386	MODERN GEOMETRY	3.00
MATH-460	ABSTRACT ALGEBRA I	3.00
MATH-480	REAL ANALYSIS I	3.00
PHYS-212	PHYSICS FOR SCIENTISTS AND ENGINEERS II	5.00

Natural Science Electives	
Select 4 credits of 300/400 level from the following course prefixes: BIO, BIOF, CHEM, CS, CYB, GIS, MATH, NS, or PHYS. [1]	4.00
Secondary Education Certificate	
See Secondary Education Certificate Requirements below	
Total Credits	**51.00**

[1] See Catalog section "Teacher Education Division: Secondary Teacher Certification" regarding certification requirements for this major. Selective course choices could be affected

Secondary Education Certificate Requirements

Application for admission to the Teacher Education Program is required after successful completion of the first three Phase I courses.

Code	Title	Credits
Phase I - Professional Foundations of Education		
ED-214	PRINCIPLES OF EDUCATION [1]	3.00
ED-225	TECHNOLOGIES FOR TEACHING, K-12	3.00
ED-318	ASSESSMENT OF LEARNING [1]	3.00
ED-321	EDUCATIONAL PSYCHOLOGY [1]	3.00
ED-345	CULTURALLY RELEVANT TEACHING	3.00
SE-322	INCLUSION STRATEGIES K-12 (may be taken in Phase I or Phase II)	3.00
Phase II - Professional Studies in Education		
ED-445	INSTRUCTIONAL STRATEGIES AND CLASSROOM MANAGEMENT, 6-12	3.00
ED-447	TEACHING METHODS IN THE CONTENT AREA	2.00
RE-309	DISCIPLINARY LITERACY	3.00
Phase III - Instructional Methods in Education		
ED-452	INTERNSHIP SEMINAR	1.00
ED-460	PROFESSIONAL INTERNSHIP IN EDUCATION 6-12	12.00
Total Credits		**39.00**

[1] Additional requirements must be met for teacher certification. See your Teacher Education Division advisor for details.

No grade lower than a “C-” will be accepted in any General Education core, Content Major, or 200-level Professional Foundations course. No grade lower than a “B-” will be accepted in any 300- or 400-level courses in Secondary Education.

A minimum cumulative GPA of 3.0 is required for admission into the Secondary Teacher Education Program. Candidates must also maintain a 3.0 cumulative GPA in their content area classes.

Secondary Education Certificate Requirements

Course	Title	Credits
First Year		
Fall		
ED-214	PRINCIPLES OF EDUCATION	3.00
ED-225	TECHNOLOGIES FOR TEACHING, K-12	3.00
ED-318	ASSESSMENT OF LEARNING	3.00
ED-321	EDUCATIONAL PSYCHOLOGY	3.00
ED-345	CULTURALLY RELEVANT TEACHING	3.00
	Credits	**15.00**
Spring		
ED-445	INSTRUCTIONAL STRATEGIES AND CLASSROOM MANAGEMENT, 6-12	3.00
ED-447	TEACHING METHODS IN THE CONTENT AREA	2.00
RE-309	DISCIPLINARY LITERACY	3.00
SE-322	INCLUSION STRATEGIES K-12	3.00
	Credits	**11.00**

Second Year		
Fall		
ED-452	INTERNSHIP SEMINAR	1.00
ED-461	PROFESSIONAL INTERNSHIP IN EDUCATION K-12	12.00
	Credits	**13.00**
	Total Credits	**39.00**

Graduates with a BA/BS in Mathematics: Secondary Education go on to obtain careers in a variety of fields:

- Secondary Mathematics Teacher (6-12)
- Adult and Continuing Education
- Training Specialist
- Business and Industry
- Market Research
- Instructional Coach