

MATHEMATICS: SECONDARY EDUCATION 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.

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	COLLEGE ALGEBRA	
MATH-147	COLLEGE ALGEBRA AND TRIGONOMETRY	
MATH-170	CALCULUS I	
Humanistic & Artistic Ways of Knowing		
Select one course from two categories:		6.00-8.00
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	
CITPT-108	INTRODUCTION TO COMPUTER SCIENCE	
CS-108	INTRODUCTION TO COMPUTER SCIENCE	
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 or PHYS-112	GENERAL PHYSICS I 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

Diversity

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 38.00-44.00

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	FOUNDATIONS OF PROGRAMMING	4.00
MATH-170	CALCULUS I (Required if not taken as core)	
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		45.00

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-224		2.00
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-424	MEDIA & TECHNOLOGIES FOR TEACHING, K-12	2.00
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		40.00

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.

Sequential Plan of Study

Course	Title	Credits
First Year		
Fall		
CORE	MATH-143, MATH-147 or MATH-170	3.00-5.00
CORE	Oral Communication	3.00
CORE	Scientific Ways of Knowing	3.00
ENGL-101	WRITING AND RHETORIC I	3.00
CS-111	FOUNDATIONS OF PROGRAMMING	4.00
Credits		16.00-18.00

Spring		
CORE	Humanistic & Artistic Ways of Knowing	3.00
ENGL-102	WRITING AND RHETORIC II	3.00
MATH-175	CALCULUS II	4.00
PHYS-211	PHYSICS FOR SCIENTISTS AND ENGINEERS I	5.00
PSYC-205	LIFESPAN DEVELOPMENTAL PSYCHOLOGY	3.00
Credits		18.00
Second Year		
Fall		
CORE	Humanistic & Artistic Ways of Knowing	3.00
CORE	Social & Behavioral Ways of Knowing	3.00
MATH-186	DISCRETE MATHEMATICS	3.00
MATH-253	STATISTICAL METHODS FOR THE SCIENCES	3.00
MATH-275	CALCULUS III	4.00
Credits		16.00
Spring		
CORE	Diversity	3.00
CORE	Integrative Seminar: Ethics & Values	3.00
MATH-300	INTRODUCTION TO MATHEMATICAL REASONING	3.00
MATH-320	PROBABILITY AND STATISTICS	3.00
PHYS-212	PHYSICS FOR SCIENTISTS AND ENGINEERS II	5.00
Credits		17.00
Third Year		
Fall		
MATH-340	LINEAR ALGEBRA	3.00
MATH-386	MODERN GEOMETRY	3.00
Credits		6.00
Spring		
MATH-460	ABSTRACT ALGEBRA I	3.00
MATH-480	REAL ANALYSIS I	3.00
Elective	Select MATH or Science course 300/400 Level	4.00
Credits		10.00
Total Credits		83.00-85.00

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-460	PROFESSIONAL INTERNSHIP IN EDUCATION 6-12	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