Mathematics Program

OVERVIEW OF THE PROGRAM:

The mission of the mathematics degree program is to equip students with analytical and problem-solving skills for careers in education, academia, and industry. Students are trained to apply the universal language of mathematical methods and reasoning to local and global issues, to address problems in mathematics and other fields, to become self-reliant learners, and to communicate ideas effectively.

The department cooperates fully with the College of Education in meeting its mission for candidates for a B.A. degree in Education with a mathematics teaching specialization for either the 5-9 or the 5-Adult grade levels.

Degrees offered are B.S. in Mathematics and B.A. in Mathematics Education 5-Adult. In addition, a 5-9 Math specialization may be attached to any other education degree. Students receiving a B.A. in Math Education may also satisfy the degree requirements for the B.S. in Mathematics by taking the appropriate electives.

All students majoring in Mathematics must complete a minor or a double major. Recommended minors are Computer Science, Business, or Science. Students who are receiving a teaching certificate and choose to earn a BS in Mathematics use Education as their double major.

All students are encouraged to take Foreign Language courses as electives.

Both Mathematics model schedules are based on the assumption that students are ready to enroll in Calculus 1 in the first semester.
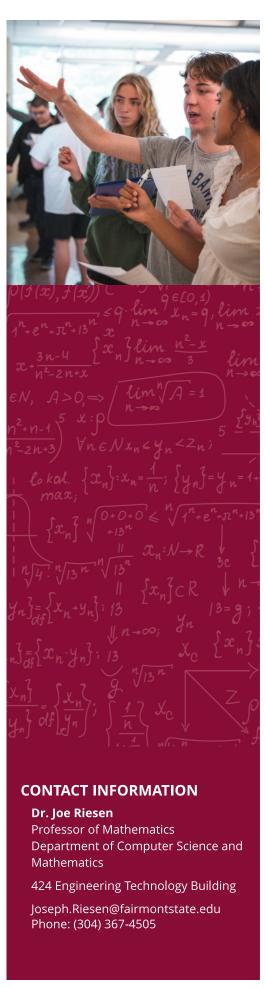
EMPLOYMENT OPPORTUNITIES:

Graduates of the Fairmont State Mathematics Program are employed by such diverse employers as the U.S. Census Bureau, the U.S. Navy, banking, manufacturing, chemical, computer, and engineering firms. Of recent graduates, approximately two-thirds of the B.S. recipients and half of the B.A. recipients have completed or are working toward advanced degrees.

In 2021, The US Bureau of Labor and Statistics estimated that the median pay for Mathematicians and Statisticians with a Master's degree was $96,280 per year or $46.29 per hour.

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FAIRMONT STATE UNIVERSITY™
College of Science and Technology

CONTACT INFORMATION

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BACHELOR OF ARTS IN MATH EDUCATION 5-ADULT MODEL SCHEDULE

FRESHMAN FIRST SEMESTER
EDUC 2200/2200L INTRO TO EDUCATION & FIELD EXPERIENCE 1.........................3
ENGL 1101 WRITTEN ENGLISH 1 (CC)..3-4
MATH 2501 CALCULUS I (CC)...4
MATH 1561 MATHEMATICAL REASONING...3
SOAR 1100 OR HONR 1100 FIRST YEAR SEMINAR (CC)...1
14-15

FRESHMAN SECOND SEMESTER
MATH 2502 CALCULUS II...4
ENGL 1102 WRITTEN ENGLISH II (CC)..3
COMP 1110 INTRO TO PROG OR 1120 PRINCIPLES OF PROGRAMMING I................3
EDUC 2201 INSTRUCTIONAL TECHNOLOGY (CC)...3
MATH 2562 DISCRETE MATH..3
16

SOPHOMORE FIRST SEMESTER
MATH 3503 CALCULUS III...4
MATH 3520/3570 LINEAR ALGEBRA/MODERN GEOMETRY....................................3
EDUC 2203 HUMAN GROWTH & DEVELOPMENT...3
ORAL COMMUNICATION (ANY IN CORE CURRICULUM 3)......................................3
CHEM/PHYSICS/BIO/GEO (CC)...4-5
17-18

SOPHOMORE SECOND SEMESTER
EDUC 2240 HIGH INCIDENCE DISABILITIES...3
EDUC 2241 FIELD EXPERIENCE 2..1
MATH 1550 APPLIED STATISTICS..3
ELECTIVE (MATH GROUP B)..3
CITIZENSHIP (ANY IN CORE CURRICULUM 9)..3
HUMANITIES (ANY IN CORE CURRICULUM 5)...3
16

JUNIOR FIRST SEMESTER
MATH 2563 TRANSITION TO HIGHER MATH..3
MATH 3520/3570 LINEAR ALGEBRA/MODERN GEOMETRY....................................3
EDUC 2260 INSTRUCTIONAL DESIGN I...3
EDUC 2261 FIELD EXPERIENCE 3..2
ELECTIVE...3
SOCIAL SCIENCE (ANY IN CORE CURRICULUM 8)..3
17

JUNIOR SECOND SEMESTER
EDUC 3331 READING IN CONTENT AREA...3
EDUC 3334 FIELD EXPERIENCE 4..2
MATH 4520 ABSTRACT ALGEBRA..3
FINE ARTS (ANY IN CORE CURRICULUM 6)..3
ELECTIVE...3
14

SENIOR FIRST SEMESTER
MATH 4531 MATH METHODS 3
EDUC 3340 INSTRUCTIONAL DESIGN II..3
EDUC 3351 INCLUSIVE PRACTICES..3
EDUC 3341 RESIDENCY 1...5
14

SENIOR SECOND SEMESTER
EDUC 4480 TEACHER PERFORMANCE ASSESSMENT SEMINAR..............................2
EDUC 4483 STUDENT TEACHING FOR SECONDARY...10
12

BACHELOR OF SCIENCE IN MATHEMATICS MODEL SCHEDULE

FRESHMAN FIRST SEMESTER
MATH 2501 CALCULUS I (CC)...4
MATH 1561 MATHEMATICAL REASONING...3
CITIZENSHIP (ANY IN CORE CURRICULUM 9)...3
ENGL 1101 WRITTEN ENGLISH I (CC).. 3-4
MINOR/ELECTIVE..3
SOAR 1100 OR HONR 1100 FIRST YEAR SEMINAR (CC)...1
17-18

FRESHMAN SECOND SEMESTER
MATH 2502 CALCULUS II...4
MATH 1550 APPLIED STATISTICS (CC)..3
ENGL 1102 WRITTEN ENGLISH II (CC)..3
COMP 1110 INTRO TO PROG OR 1120 PRINCIPLES OF PROGRAMMING I.............3
13

SOPHOMORE FIRST SEMESTER
MATH 3503 CALCULUS III...4
MATH 2563 TRANSITION TO HIGHER MATHEMATICS...3
ORAL COMMUNICATION (ANY IN CORE CURRICULUM 3)......................................3
HUMANITIES (ANY IN CORE CURRICULUM 5)...3
MINOR/ELECTIVE..3
16

SOPHOMORE SECOND SEMESTER
MATH 3550 PROBABILITY 3
FINE ARTS (ANY IN CORE CURRICULUM 6)..3
SOCIAL SCIENCE (ANY IN CORE CURRICULUM 8)..3
MINOR/ELECTIVE..3
MINOR/ELECTIVE..3
15

JUNIOR FIRST SEMESTER
MATH 3520 LINEAR ALGEBRA...3
GROUP B MATH ELECTIVE...3
MINOR/ELECTIVE..3
MINOR/ELECTIVE..3
CHEM/PHYSICS/BIO/GEO (CC)...4-5
16-17

JUNIOR SECOND SEMESTER
MATH 4520 ABSTRACT ALGEBRA..3
GROUP B MATH ELECTIVE...3
MINOR/ELECTIVE..3
MINOR/ELECTIVE..3
MINOR/ELECTIVE..3
15

SENIOR FIRST SEMESTER
GROUP B MATH ELECTIVE...3
MINOR/ELECTIVE..3
MINOR/ELECTIVE..3
MINOR/ELECTIVE..3
MINOR/ELECTIVE..3
15

SENIOR SECOND SEMESTER
MATH 4580/4590 TOPOLOGY/REAL ANALYSIS...3
MINOR/ELECTIVE..3
MINOR/ELECTIVE..3
MINOR/ELECTIVE..4-5
13-14

Note :Teacher candidates may also earn a B.S. in Mathematics by choosing the following two courses for their elective credits:
        MATH 3550 PROBABILITY
        MATH 4580/4590 TOPOLOGY/REAL ANALYSIS

Note: Students earning a BS in Mathematics are required to have a minor or a double major.

04/2023