EASTERN WASHINGTON UNIVERSITY
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BA/MS, Mathematics/Five-Year Program

Major requirements:

Required Courses: (86 credits at undergraduate level, 44 credits at graduate level) **Total Credits for Program: 130**

Required for the BA degree and to advance to graduate standing:
180 credits minimum, 60 credits of upper-division coursework. 45 credits in residence, Foreign Language.

Course Number	Course Name	Credits
MATH 161	Calculus I	5
MATH 162	Calculus II	5
MATH 163	Calculus III	5
MATH 241	Calculus IV	5
MATH 225	Foundations of Mathematics	5
MATH 231	Linear Algebra	5
MATH 360	Continuous Functions	4
MATH 431	Introduction to Modern Algebra I	4
MATH 432	Introduction to Modern Algebra II	4
MATH 461	Advanced Calculus I	4
MATH 462	Advanced Calculus II	4
MATH 494	Senior Seminar	2
MATH 531	Algebra I	4
MATH 532	Algebra II	4
MATH 533	Algebra III	4
MATH 551	General Topology I	4
MATH 561	Real Analysis I	4
MATH 562	Real Analysis II	4
MATH 573	Topics in Applied Mathematics	4
MATH 581	Complex Analysis I	4
MATH 582	Complex Analysis II	4
MATH 600	Thesis	8

Select five courses from the following: (20 credits)

MATH 345	Numerical Analysis I	4
MATH 347	Introductory Differential Equations	4
MATH 385	Probability and an Introduction to Statistics	4
MATH 430	Advanced Linear Algebra	4
MATH 433	Introduction to Modern Algebra III	4
MATH 445	Numerical Analysis II	4
MATH 447	Differential Equations	4
MATH 470	Foundations of Geometry	4
MATH 485	Theoretical Probability and Mathematical Statistics	4

Supporting Courses: (13 credits) Courses satisfying this requirement must be selected from the following two lists with at least 5 credits from List A and at least 8 credits from List B.

List A:
CSCD 210 Programming Principles I (5 credits)
CSCD 211 Programming Principles II (5 credits)
CSCD 255 C-Programming for Engineers (5 credits)
CSCD 305 C++ Programming (4 credits)

List B:
PHYS 151 General Physics I (4 credits)
PHYS 152 General Physics II (4 credits)
PHYS 153 General Physics III (4 credits)
CHEM 421 Physical Chemistry I (4 credits)
CHEM 422 Physical Chemistry II (3 credits)
CHEM 423 Physical Chemistry III (3 credits)
ECON 430 Mathematical Economics (5 credits)
CSCD 420 Automata (4 credits)
CSCD 501 Theory of Computing I (4 credits)
CSCD 502 Theory of Computing II (4 credits)

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NEW FRESHMAN FIVE-YEAR SCHEDULE

Assumptions: This assumes advanced placement into MATH 162 Calculus (see note below) and completion of Foreign Language requirement. Credit for MATH 161 will be given upon completion of MATH 162.

	Fall	Winter	Spring
Freshman	MATH 162 - 5 cr. MATH 231 - 5 cr CPLA 100/101 – 2 cr. ENGL 101 - 5 cr.	MATH 163 - 5 cr. MATH 225 - 5cr ENGL 201 – 5 cr. Free Elective – 2-3 cr	MATH 241 - 5 cr. MATH Elective – 4 cr CSCD 255 – 5 cr. Free Elective – 2-4 cr
Sophomore	MATH Elective - 4 cr. PHYS 151 – 4 cr. GECR – 5 cr. Free Elective – 4-5 cr	MATH Elective - 4 cr. PHYS 152 – 4 cr. GECRs (two) - 10 cr.	MATH Electives – 8 cr GECR – 5 cr. Free Elective – 4-5 cr
Junior	MATH 360 – 4 cr. MATH 431 - 4 cr. GECRs (two) – 10 cr.	MATH 432 – 4 cr. MATH 461 - 4 cr. GECR - 5 cr. Cultural Div. – 4-5 cr.	MATH 433 – 4 cr. MATH 462 - 4 cr. Intern. Studies – 4-5 cr. GECR – 5 cr.
Senior/Graduate *	MATH 531 - 4 cr. MATH 551 – 4 cr. ITGS 400 – 4 cr. Free Elective – 4-5 cr	MATH 532 - 4 cr. MATH 561 or 581 – 4 cr. MATH 494 - 2 cr. MATH 522** - 1 cr	MATH 533 – 4 cr MATH 562 or 582 – 4 cr. MATH 523** - 1cr
Graduate	MATH 573 – 4 cr MATH 600 – 4-8 cr MATH 521** - 1cr	MATH 561 or 581 – 4 cr. MATH 600 – 4-8 cr	MATH 562 or 582 – 4 cr. MATH 600 – 4-8 cr

* Under this schedule a BA in Mathematics is earned by the completion of Fall or Winter Quarter of the Senior Year. The student is eligible for a graduate assistantship if within 15 credits of completing the BA requirements and a full graduate instructorship upon completion of the BA.

**MATH 521-523 are required only for students holding a graduate assistant or instructor appointment

Students seeking entrance into the Five-Year BA/MS program are required to:

1. Take a year of Calculus in their senior year at a college or at their high school. If the student takes Calculus at a college, he or she must average 3.0 or better. If the student takes Calculus in high school, he or she must take the Calculus Advanced Placement Exam (preferably BC) and earn a 4 or a 5.
2. Apply to the Mathematics Department for Admission into the program. A letter of recommendation from a high school (or college) mathematics teacher is required.

Note: Students in the BA/MS Mathematics program are required to complete a minimum of 45 credits towards the graduate degree that are included on an application for graduate degree candidacy and approved by the Mathematics graduate advisor and the Graduate Studies Office. No credits used for the BA degree count toward the MS degree requirement. It is a strongly recommended that a complete schedule of classes be planned in consultation with a departmental advisor prior to the student's first quarter.

For more information please contact:
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