MSU Program Contact Info:

Dr. William Bray WBray@MissouriState.edu 417-836-6270

OZARKS TECHNICAL COMMUNITY COLLEGE



OTC Associate of Science in Mathematics

to

MSU Bachelor of Science in Mathematics

Available on campus only.

Comprehensive majors do not require a minor or second major.

| REQUIREMENT DESCRIPTION | OTC COURSE ID/TITLE | OTC COURSE ID/TITLE | | MSU EQUIVALENT | MSU MAJOR REQUIREMENT |
|---|--|--|---|-------------------|--------------------------|
| Mathematical Sciences 5 credit hours required for the A.S. in Mathematics | MTH 140 | Analytic Geometry and Calculus I ☑ ("C" or better required) | | MTH 261 | ✓ |
| | Choose one: | | | ENG 110 | |
| Written Communications | ENG 100 ENG 101 | The Rest of the Re | | | |
| CIS 120 Prerequisite | CIS 101 | Technology and Digital Literacy | | ITC 200 | |
| Computer Applications Course | omputer Applications Course CIS 120 Introduction to Computer Programming ☑ | | 3 | CSC 130 | ✓ |
| | Semester 1 Tot | | | | |

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| REQUIREMENT DESCRIPTION | OTC COURSE ID/TITLE | OTC COURSE ID/TITLE | | MSU EQUIVALENT | MSU MAJOR REQUIREMENT |
|---------------------------|---------------------------|--|----|-------------------|--------------------------|
| Program Requirement | MTH 141 | MTH 141 Analytic Geometry and Calculus II ☑ ("C" or better required) | | MTH 280 | ✓ |
| Natural Sciences* | PHY 220 | Physics Engrs & Scientists I ☑ | 5 | PHY 203 | ✓ |
| Humanities and Fine Arts* | Choose one Human | Choose one Humanities and Fine Arts course. | | Varies | |
| Written Communications | ENG 150 Technical Writing | | 3 | ENG 221 | |
| Semester 2 Tot | | | 16 | | |

| OTC Year 2 Semester 3 | | | | | | |
|----------------------------|--|--|----|-------------------|--------------------------|--|
| REQUIREMENT DESCRIPTION | OTC COURSE ID/TITLE | OTC COURSE ID/TITLE | | MSU EQUIVALENT | MSU MAJOR REQUIREMENT | |
| Program Requirement | MTH 240 | ArtH 240 Analytic Geometry and Calculus III ☑ ("C" or better required) | | MTH 302 | ✓ | |
| Program Requirement | MTH 215 | Algebraic Structures ☑ | | MTH 315 | ✓ | |
| Social/Behavioral Sciences | ECO 270 | ECO 270 Principles of Macroeconomics | | ECO 155 | | |
| Oral Communications | Choose one Oral Communications course. | | 3 | Varies | | |
| Natural Sciences* | BIO 160 General Biology I | | 4 | BIO 121 | | |
| | | Semester 3 Total | 16 | | | |

| REQUIREMENT DESCRIPTION | OTC COURSE ID/TITLE | | | CREDIT HOURS | MSU EQUIVALENT | MSU MAJOR REOUIREMENT |
|---|--|------------------|---------|-----------------|---------------------|--------------------------|
| Social/Behavioral Sciences* - Civics | Choose one: PLS 101 | HST 120 | HST 130 | 3 | Varies | |
| Program Elective | MTH 241 Differential Equations ☑ | | | 3 | MTH 303 | ✓ |
| Program Elective | MTH 230 | Linear Algebra ☑ | | 3 | MTH 333 | ✓ |
| Institutional Elective 8 hours required for A.S. Mathematics | Any course numbered 100 and above - your choice. | | | 5 | Varies | |
| | Semester 4 Tota Total Hours at OTC | | | 14 60-62 | Total MSU hours: | 30 |

^{*}Must fulfill two disciplines

 $[\]ensuremath{\square}$ This course meets a major requirement at Missouri State

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MSU Bachelor of Science in Mathematics

after

OTC Associate of Science in Mathematics

| REQUIREMENT DESCRIPTION | MSU COURSE ID/TITLE | MSU COURSE ID/TITLE | | |
|---|---------------------|---|----|--|
| Major Requirement - Capstone | MTH 532 | Introduction to Abstract Algebra | 3 | |
| Major Requirement - Capstone | MTH 540 | TH 540 Statistical Theory | | |
| Major Elective | Choose any Mathemat | Choose any Mathematics course numbered 400 and above with the assistance of an advisor. | | |
| Social/Behavioral Sciences 9 credit hours required for Core 42 | Choose one Social a | Choose one Social and Behavioral Sciences course. | | |
| General Elective ** | | | 3 | |
| | | Semester 1 Total | 15 | |

| REQUIREMENT DESCRIPTION | MSU COURSE ID/T | MSU COURSE ID/TITLE | | |
|---|---|---|----|--|
| Major Requirement - Capstone | MTH 503 | Advanced Calculus I | 3 | |
| | Choose one: | | | |
| Major Requirement | MTH 421 MTH 541 | | | |
| Major Elective | Choose any Mathe | Choose any Mathematics course numbered 400 and above with the assistance of an advisor. | | |
| Major Elective | Choose any Mathe | Choose any Mathematics course numbered 400 and above with the assistance of an advisor. | | |
| Humanities and Fine Arts* 9 credit hours required for Core 42 | Choose one Humanities and Fine Arts course. | | 3 | |
| | | Semester 2 Total | 15 | |

MSU Year 4 Semester 3

| REQUIREMENT DESCRIPTION | MSU COURSE ID/TITLE | CREDIT HOURS |
|--|---|-----------------|
| Major Elective | Choose any Mathematics course numbered 400 and above with the assistance of an advisor. | 3 |
| Major Elective | pose any Mathematics course numbered 400 and above with the assistance of an advisor. | |
| Humanities and Fine Arts* 9 credit hours required for Core 42 | Choose one Humanities and Fine Arts course. | 3 |
| General Elective ** | | 6 |
| | Semester 3 Total | 15 |

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| REQUIREMENT DESCRIPTION | MSU COURSE ID/TITLE | MSU COURSE ID/TITLE | | |
|------------------------------|-----------------------|---|---------|--|
| Major Requirement - Capstone | MTH 497 Topics | | 1 | |
| Major Elective | Choose any Mathematic | Choose any Mathematics course numbered 400 and above with the assistance of an advisor. | | |
| Core 42 Elective | Choose MOTR coded co | Choose MOTR coded course of your choice with the assistance of an advisor. | | |
| General Elective ** | | | 10 | |
| | | Semester 4 Total | 15 | |
| Total Hours at MSU | | | 60 | |
| Total Hours Overall | | | 120-122 | |

^{**}Work with your MSU advisor to identify courses that will complement your specific career goals. Electives provide the opportunity to customize your degree program. Some elective credits may or may not be needed to bring total credit hours to a minimum of 120 credit hours and upper division hours (300+) to 40.

This degree is also available as a Bachelor of Arts (BA).

Please consult an MSU transfer advisor to determine your best degree options.

- This information is provided as a guide only.

 OTC students are strongly encouraged to meet with their major specific MSU transfer advisor early in their OTC education to discuss the most appropriate OTC coursework for their intended MSU major, MSU
- degree requirements, etc.

 Students are required to fulfill MSU graduation and GPA requirements to receive a degree and should consult with their MSU advisor and the MSU undergraduate catalog for details, as there may exist pre-
- requisite requirements as well as periodicity limitations that could affect scheduling sequences.

 Please note that transfer students from Missouri public colleges and universities may follow the general education and general baccalaureate degree requirements in effect at Missouri State when they first enrolled (or re-enrolled after an absence of one calendar year or more) as degree-seeking students at the institutions from which they transferred (e.g., OTC).

| Date Modified: | 7.19.23 |
|----------------|---------|