Academic Council Minutes
May 25, 2022
Midwestern State University

The Academic Council met Wednesday, May 25, 2022 at 2 p.m. in the Dillard College of Business Administration, the Priddy Conference Room.

Voting members:
Dr. Marcy Brown Marsden, Dean, McCoy College of Science, Mathematics, and Engineering
Dr. Martin Camacho, Dean, Lamar D. Fain College of Fine Arts
Dr. Leann Curry, Interim Dean, Gordon T. and Ellen West College of Education
Dr. Jeff Killion, Dean, Robert D. and Carol Gunn College of Health Sciences and Human Services
Dr. Jeff Stambaugh, Dean, Dillard College of Business Administration
Dr. Sam Watson, Dean, Prothro-Yeager College of Humanities and Social Sciences
Dr. Kathryn Zuckweiler, Dean, Dr. Billie Doris McAda Graduate School (absent from meeting)
Dr. Marcos Lopez, Faculty Senate Vice Chair
Ms. Brittany Roberts, Student Government Association (absent from meeting)

Other Attendees:
Dr. Michael Mills, Director, Global Education
Mr. Kenley O'Brien, Assistant to the Registrar
Ms. Cortny Bates, University Librarian, Moffett Library
Ms. Leah Hickman, Senior Associate Director, Admissions

Dr. James Johnston, Provost and Vice President for Academic Affairs, presided and the meeting began at 2:00 p.m.

Approval of Minutes

The April 2022 minutes were discussed. Dr. Camacho made a motion to approve, Dr. Killion seconded the motion, and the minutes were approved.

Old Business

All proposed changes are marked as such: deleted items are marked with a strikethrough line and new items are in bold and underlined. Italicized wording is justification or clarification from the proposing department/college.

There being no Old Business, the Council moved on to New Business.

New Business

1. Dr. Killion made a motion to adopt the following undergraduate course and catalog changes. Dr. Brown Marsden seconded and the motion was adopted. (closed)

Admission Criteria for the BSRS Program

1. Meet all MSU admission requirements.
2. Have a cumulative GPA of 2.0 or higher.
3. Be certified by the ARRT, NMTCB, **ARDMS** or be a second year student in an accredited Radiologic Sciences Program.
4. Have reliable Internet access (high speed required) and a working email address.
5. Meet Texas Success Initiative (TSI) requirements (see Texas Success Initiative), or submit a signed copy of the TSI Temporary Waiver Form for Distance Education Students found at MSU Texas Success Initiative webpage.

Course Catalog Changes

Change of Course Prerequisite – Effective Fall 2022

Course Prefix: ATRN
Course Number: 3801
Course Title: Orthopedic Assessment/Management I Lab
Prerequisite(s): ~~ATRN 1073 Care and Prevention of Athletic Injuries~~

Course Prefix: ATRN
Course Number: 3803
Course Title: Evaluation of Athletic Injuries I
Prerequisite(s): ~~ATRN 1073 Care and Prevention of Athletic Injuries~~

Course Prefix: RADS
Course Number: 3243
Course Title: Patient Care
Prerequisite(s): ~~3043 Radiographic Procedures I~~

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2. Dr. Brown Marsden made a motion to adopt the following undergraduate course and catalog changes. Dr. Lopez seconded and the motion was adopted. (closed)

Mathematics, B.S. with Secondary Certification (Grades 7-12)

General

(See General Requirements for all Bachelor's Degrees)
Bachelor of Science with Secondary Certification (Grades 7-12)

(See Requirements for the Bachelor of Science Degree with Secondary Certification (Grades 7-12)).
Bachelor of Science

(see Requirements for the Bachelor of Science Degree)
Major: Mathematics - 32 hours

- MATH 1734 - Calculus II 4
- MATH 2534 - Calculus III 4
- MATH 2753 - Linear Algebra 3
- MATH 3233 - Introduction to Modern Mathematics 3
- MATH 3133 - Foundations of Geometry 3
- MATH 3753 - Vector Spaces 3
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    Select 2 of the following 3 courses:
- MATH 3293 - Abstract Algebra I 3
- MATH 4133 - Mathematical Statistics I 3
- MATH 4733 - Introductory Analysis I 3

6 additional advanced hours of MATH
Six (6) additional advanced hours of mathematics (MATH), exclusive of MATH 3004 and MATH 4033.

Other Requirements – ~~24~~ **18 hours**

- CMPS 1044 - Computer Science I 4
- CMPS 1063 - Data Structures and ADT 3
- ~~EDUC 4233 - Undergraduate Action Research 3 semester hours~~
- ~~EPSY 3153 - Educational Psychology 3~~
- STAT 3573 - Probability and Statistics 3

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2 semesters lab science - 8 hours

Professional Education – ~~21~~ 27 hours
Foundation Courses – ~~9~~ 12 hours

Student must have passed TSI or equivalent and 60 semester hours.
Student must have completed ~~EDUC 2013~~ **45 semester hours and** EDUC 2013 and COUN 2143. **Students must be admitted to the Teacher Education Program before enrolling.**

- EDUC 3163 - Classroom Management 3
- EDUC 3183 - Classroom Assessment 3
- SPED 3623 - Teaching Students with Special Needs in Inclusive Settings 3
- **EPSY 3153 - Educational Psychology 3**

Block A – ~~9~~ 12 hours
Student must be admitted to the Teacher Education Program before enrolling.
Student must have completed Foundations Courses and EPSY 3153 prior to enrolling in Block courses.
- EDUC 4076 - Teaching Methods in Mathematics (Middle and High School) 6
- READ 4403 - Content Literacy 3

To be taken in last semester - 3 hours
- EDUC 4173 - Clinical Teaching for Undergraduate Students 3
- **EDUC 4233 - Undergraduate Action Research 3 semester hours**

Total Semester Hours – ~~121~~ 120

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3. Dr. Brown Marsden made a motion to adopt the following undergraduate course and catalog changes. Dr. Camacho seconded and the motion was adopted. (closed)

Biology-Composite Science, B.S. with Secondary Certification (Grades 7-12)

General
(See General Requirements for all Bachelor's Degrees)

Bachelor of Science with Secondary Certification (Grades 7-12)
(See Requirements for the Bachelor of Science Degree with Secondary Certification (Grades 7-12).

Major: Biology - ~~44~~ **40** hours
BIOL 1114 - Life I: Molecular & Cellular Concepts 4
BIOL 1214 - Life II: Evolution and Ecology 4
~~BIOL 2114 - Life III: The Diversity of Life 4~~

Any 1 of the following
BIOL 3114 - Zoology: Animal Life 4
BIOL 3214 - Botany: Plant Life 4
BIOL 3314 - General Microbiology 4

~~BIOL 3104 - Fundamental Genetics 4~~
~~OR~~
BIOL 3334 - Genetics 4

GEOS 1134 - Physical Geology 4
GEOS 1234 - Historical Geology 4
~~GEOS 3034 - Oceanography 4~~
CHEM 2003 - Organic Chemistry 3
CHEM 2001 - Organic Chemistry Laboratory 1
PHYS 1144 - General Physics 4
PHYS 1244 - General Physics 4

Choose 4 hours from:
BIOL 3024 - Vertebrate Zoology 4
BIOL 3434 - Entomology 4
BIOL 3534 - Systematic Botany 4

Other Requirements - 11 hours
CHEM 1143 – General Chemistry
CHEM 1141 - General Chemistry Laboratory 1

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<u>CHEM 1243 - General Chemistry</u>
CHEM 1241 - General Chemistry Laboratory 1
~~EDUC 4233 - Undergraduate Action Research 3 semester hours~~
~~EPSY 3153 - Educational Psychology 3~~
MATH 1433 - Plane Trigonometry 3

Professional Education - ~~24~~ **27** hours
Foundation Courses - ~~9 hours~~ **12 hours**
Student must have completed 45 semester hours and EDUC 2013 and COUN 2143. **Students must be admitted to the Teacher Education Program before enrolling.**

EDUC 3163 - Classroom Management 3
EDUC 3183 - Classroom Assessment 3
SPED 3623 - Teaching Students with Special Needs in Inclusive Settings 3
EPSY 3153 - Educational Psychology 3

Block A - 12 hours
Students must have Foundation Courses and EPSY 3153 completed prior to enrolling.
EDUC 4086 - Teaching Methods in Science (Middle and High School) 6
ETEC 4003 - Advanced Technology Integration 3
READ 4403 - Content Literacy 3

To be taken in last semester - 3 hours
EDUC 4173 - Clinical Teaching for Undergraduate Students 3
<u>EDUC 4233 - Undergraduate Action Research 3 semester hours</u>

Total Semester Hours – ~~121~~ **120**

4. Dr. Brown Marsden made a motion to adopt the following undergraduate course and catalog changes. Dr. Killion seconded and the motion was adopted. (closed)

Biology-Life Science, B.S. with Secondary Certification (Grades 7-12)

General
(See General Requirements for all Bachelor's Degrees)

Bachelor of Science with Secondary Certification (Grades 7-12)
(See Requirements for the Bachelor of Science Degree with Secondary Certification (Grades 7-12)).

Major: Biology - ~~38~~ **35** hours
BIOL 1114 - Life I: Molecular & Cellular Concepts 4
BIOL 1214 - Life II: Evolution and Ecology 4
~~BIOL 2114 - Life III: The Diversity of Life 4~~
BIOL 3114 - Zoology: Animal Life 4
BIOL 3214 - Botany: Plant Life 4
BIOL 3314 - General Microbiology 4
~~BIOL 3044 - Bacteriology 4~~
~~BIOL 3104 - Fundamental Genetics 4~~
BIOL 3334 - Genetics
~~BIOL 3113 - Biogeography 3~~
BIOL 3144 - Physiology 4
~~BIOL 3534 - Systematic Botany 4~~

BIOL 3434 - Entomology 4
OR
BIOL 3644 - Invertebrate Zoology 4

BIOL 4143 - Evolution and Systematics 3

Other Program Requirements - 13 hours
CHEM 1143 – General Chemistry
CHEM 1141 - General Chemistry Laboratory 1
CHEM 1243 - General Chemistry
CHEM 1241 - General Chemistry Laboratory 1
CHEM 2003 - Organic Chemistry 3
CHEM 2001 - Organic Chemistry Laboratory 1
MATH 1433 - Plane Trigonometry 3

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PHYS 1144 - General Physics 4

~~Other Requirements - 3 hours~~
~~EPSY 3153 - Educational Psychology 3~~
Professional Education - ~~24~~ **27** hours
Foundation Courses: ~~9 hours~~ **12 hours**
~~Student must have passed TSI or equivalent and 60 semester hours.~~ **Student must have completed 45 semester hours and EDUC 2013 and COUN 2143.** Students must be admitted to the Teacher Education Program before enrolling.

EDUC 3163 - Classroom Management 3
EDUC 3183 - Classroom Assessment 3
~~SPED 3613 - Exceptional Individuals 3~~
SPED 3623 - Teaching Students with Special Needs in Inclusive Settings 3
EPSY 3153 - Educational Psychology 3

Block A: **12 hours**
~~Student must be admitted to the Teacher Education Program before enrolling.~~ **Students must have Foundation Courses and EPSY 3153 completed prior to enrolling.**

~~EDUC 4083 - Teaching Methods in Science (Middle & High School) 3~~
EDUC 4086 - Teaching Methods in Science (Middle and High School) 6
ETEC 4003 - Advanced Technology Integration 3
READ ~~4273~~ **4403** - Content ~~Reading~~ **Literacy** 3 semester hours

To be taken in last semester:
EDUC ~~4166~~ **4173** - Clinical Teaching for Undergraduate Students **3** ~~6~~ semester hours
EDUC 4233 - Undergraduate Action Research 3 semester hours

Total Semester Hours - 120

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5. Dr. Brown Marsden made a motion to adopt the following undergraduate course and catalog changes. Dr. Watson seconded and the motion was adopted. (closed)

New Course Additions – Effective Fall 2023

Course Prefix: **GEOS**
Course Number: **3084**
Course Title: **Computing in Geospatial Sciences**
Prerequisite(s): **MATH 1233 or MATH 1534 or MATH 1634 or permission of the instructor**
Description: **This course will introduce upper-level geoscience and environmental science students to geospatial science, with a focus on analysing geoscience and environmental science data. The course will teach the students how to use software to create scientific graphics, to perform mathematical calculations, and to analyze scientific data using MATLAB or other high-level programming tools. Coursework emphasizes logic and scientific approach towards research and practical applications. Topics are integrated with practical experience to maximize the amount of time spent computing. Exercises will focus on programming, data analysis, computer graphics, and other practical methods for analyzing geoscience and environmental data.**
Lec/Lab Hrs: **4 (2-4)**
Type of Course: **Lecture and Lab**
Course Objectives: **Students will:**
- **Learn the basics of scientific computing**
- **Be able to develop MATLAB code and construct scientific programs to perform data manipulation tasks with geoscience and environmental science datasets**
- **Know how to use commonly available MATLAB built-in functions and toolboxes**
- **Write efficient, well-structured and commented MATLAB scripts for a range of scientific data analysis tasks and mathematical calculations**
- **Use available documentation and internet resources to learn more advanced skills**

Course Prefix: **GEOS**
Course Number: **4084**
Course Title: **Geospatial Data Analysis**
Prerequisite(s): **MATH 1233 or MATH 1534 or MATH 1634 or permission of the instructor**
Description: **This course will introduce students to data analysis and visualization through the Python programming language and related skills. Students will learn how to install python and download the various packages, as well as how to download the remote sensing, climate, and modeling datasets that will be analyzed. Lectures will initially cover a broad range of topics related to reviewing fundamental concepts in Python (e.g. data types, data structures, indexing, sub-setting, looping over data) useful for handling large volumes of data. Following**

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that, the students will cover data handling topics: reading and manipulating large, multi-layer spatio-temporal datasets, vector and raster data manipulation, map reprojection, area selection based on geographic coordinates, masking data, data visualization. Coursework covers data analyses techniques on large geospatial datasets, including: applying basic statistics to large datasets, interpolation and smoothing, regression, function fitting for extracting information from time series data, change detection, image classification and spatial clustering, and dimensionality reduction. Throughout, the course will focus on developing the most fundamental and useful data science skills, such as cleaning and tidying raw data in preparation for analysis, and elegant and efficient code writing.

Lec/Lab Hrs: **4 (2-4)**

Type of Course: **Lecture and Lab**

Course Objectives: **The course will help students:**

- **Understand the basics of scientific computing**
- **Have a good working knowledge of the Python programming language**
- **Know how to install commonly available scientific software packages**
- **Develop scientific programs to perform data manipulation tasks with large geospatial datasets**
- **Be able to write efficient, well-structured and commented Python scripts for a range of geospatial data analysis tasks**
- **Carry out a variety of analytical tasks on large, multi-layer spatiotemporal datasets**
- **Understand technical issues with data visualization and geospatial data analysis and approaches to solve those issues**

Adjournment:

      There being no other business, the meeting was adjourned at 2:08 p.m.

Respectfully submitted,
Melissa Boerma
Assistant to the Provost

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