# COLLEGE OF ARTS AND SCIENCES
# NEW PROGRAM REVIEW FORM

| | Chair's Signature | Recommendation | Review Date |
|---|---|---|---|
| **Department** | Kevin Charlwood | Approve | 2018-09-18 |
| **Division** | Jennifer Wagner | Approve | 2018-09-21 |
| **Dept. of Educ.** | Cherry Steffen | Approve | 2018-10-20 |

(If relates to teacher certification program.)

| | | | |
|---|---|---|---|
| **Dean** | Laura Stephenson | Approve | 2018-10-22 |
| **Curriculum Committee** | Linzi Gibson | Approve | 2019-01-17 |
| **Accepted by CFC** | Michaela Saunders | Approve | 2019-02-15 |
| **CAS Faculty** | Michaela Saunders | Approve | 2019-03-25 |

**Approved By:**    **Faculty Senate** _____    **University Faculty** _____    **WU Board of Regents** _____

1. Title of Program.

   B. Ed. - Secondary Mathematics (CIP: 27)


2. Rationale for offering this program.

   Rationale: (a) provide program in a minimum of 120 credit hours; (b) prepare students to pass two different Kansas tests: Math content & Pedagogy; (c) meet new KSDE Standards for Secondary Mathematics; (d) address graduation exit interview results, where students indicate concern over enough pedagogy, particularly in Trigonometry.


3. Exact proposed catalog description.

   University Requirements
    General Education Requirements
    (b) Education Core Courses

   Course Credit Hours Area Credit Hours upon approval of the B.Ed. degree from Education Department
   WU 101 3
    Arts & Humanities 9 (to include: PH 220 & CN 150)
   EN 101 3 Social Sciences 9

   MA 116
   (or higher) (covered by major) Natural Sciences
   (at least 2 departments) 9 (no MA classes)
   (CM 101/105 if needed)
   EN 300

(teaching emphasis) 3

Total 9 Total 27 Total 39


(b) Math Content

MA 151 Calculus 1 5
MA 152 Calculus 2 5
MA 253 Calculus 3 3
MA 140 Statistics 3
MA 204 Discrete/Number Theory  (new course) 3
MA 230 Math for Middle & Secondary  (new course) 4
MA 207 Discrete Mathematics 3
MA 381 History & Literature of Mathematics 3
MA 367 Modern Geometry 3
MA 301 Linear Algebra 3
MA 354 Abstract Algebra 3
MA 380 Problem Solving 1
MA 380 Problem Solving (take it a second time) 1
MA 371 Real Analysis I 3
Choose at least TWO of the following: 2
MA 316 Teaching Algebra (algebra-based courses) (new course)
MA 317 Teaching Trig (help teach: MA 117, 131) (new course)
MA 318 Teaching Stats (help teach: MA 140) (new course)
MA 380 (take it for a third time)
MA 388 Capstone Research
Total 45



DEGREES OFFERED
Bachelor of Education
Mathematics: Secondary Education

GENERAL REQUIREMENTS
General requirements for the Bachelor of Arts degree,  or the Bachelor of Science degree, or the Bachelor of Education degree are listed in the catalog. See pages listed in the index. Graphics calculators are required in all courses MA 112 to MA 152 inclusive, and MA 253.

Secondary Math Education Emphasis Courses
Calculus I, II, III (MA 151, 152, 253), Number Theory/Discrete (MA 204), Mathematics for Middle and Secondary (MA 230), Discrete Mathematics, (MA 207), Linear Algebra (MA 301), Statistics (MA 140), Abstract Algebra (MA 354), Modern Geometry (MA 367), Introduction to Real Analysis I (MA 371), History & Literature of Mathematics (MA 381) a minimum of 2 hours of Problem Solving Strategies (MA 380), and a choice of at least 2 of the following: Teaching Algebra (MA 316); Teaching Trigonometry (MA 317); Teaching Statistics (MA 318); Problem Solving Strategies (MA 380); Math Research (MA 388).  Students seeking certification to teach mathematics must also be formally admitted to and take additional coursework in the University's Professional Teacher Education Program. For admission requirements, see EDUCATION in this catalog.


4. List any financial implications.

None.

5. Are any other departments affected by this new program?  Yes

Education, as they will create a B. Ed. degree to house all discipline-specific Bachelor's of Education degrees in the relevant content areas.

**Program Name**
B.Ed. - Secondary Math

(e.g., FY13, FY14, etc.))

| Revenue: | Year 0 - Preparation | FY19 # Students | # Cr Hrs | FY20 # Students | # Cr Hrs | FY21 # Students | # Cr Hrs | FY22 # Students | # Cr Hrs | FY23 # Students | # Cr Hrs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Est. Students/Cr Hrs | 0 | 8 | | 13 | | 18 | | 23 | | 23 | |
| | | | | | | | | | | | |
| Total Credit Hours | 0 | 240 | | 390 | | 540 | | 690 | | 690 | |
| Tuition Rate | | 292 | | 306 | | 320 | | 335 | | 351 | |
| Other Revenue Sources | | | | | | | | | | | |
| **Total Revenue** | 0 | $70,080 | | $119,340 | | $172,800 | | $231,150 | | $242,190 | |

| Ongoing Expenses: | Year 0 - Preparation | FY19 | FTE | FY20 | FTE | FY21 | FTE | FY22 | FTE | FY23 | FTE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 st Faculty Member | | | | | | | | | | | |
| Benefits (25%) | | | | | | | | | | | |
| 2nd Faculty Member | | | | | | | | | | | |
| Benefits (25%) | | | | | | | | | | | |
| 3rd Faculty Member | | | | | | | | | | | |
| Benefits (25%) | | | | | | | | | | | |
| (Continue to add as needed) | | | | | | | | | | | |
| Secretary | | | | | | | | | | | |
| Benefits (25%) | | | | | | | | | | | |
| Adjunct Faculty | | 3,780 | | 3,780 | | 3,780 | | 3,780 | | 3,780 | |
| Student stipends | | | | | | | | | | | |
| Supplies | | | | | | | | | | | |
| Marketing | | 500 | | 500 | | 500 | | 500 | | 500 | |
| Travel | | | | | | | | | | | |
| Online Course Development | | | | | | | | | | | |
| Professional Development | | | | | | | | | | | |
| Accreditation/Membership | | | | | | | | | | | |
| Support Materials | | | | | | | | | | | |
| **Total Expenses** | - | 4,280 | | 4,280 | | 4,280 | | 4,280 | | 4,280 | |
| | | | | | | | | | | | |
| **Total Net Revenue** | $ - | $ 65,800 | | $ 115,060 | | $ 168,520 | | $ 226,870 | | $ 237,910 | |

| One-time Startup Costs | Year 0 - Preparation | Year 1 | | Year 2 | | Year 3 | | Year 4 | | Year 5 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Furniture | | | | | | | | | | | |
| Office Equipment | | | | | | | | | | | |
| Computer/Software | | | | | | | | | | | |
| Other Electronic Hardware | | | | | | | | | | | |
| Renovation | | | | | | | | | | | |
| Program Equipment | | | | | | | | | | | |
| Initial Accreditation Costs | | | | | | | | | | | |
| Program Development | | | | | | | | | | | |
| Membership | | | | | | | | | | | |
| Release Time to Develop | | | | | | | | | | | |
| Consultant | | | | | | | | | | | |
| Site Visit | | | | | | | | | | | |
| Inservice/Preservice Prep | | | | | | | | | | | |

Footnotes:
No new faculty requested initially, all new courses in Mathematics/Statistics are to be taught with existing faculty.
Our current secretary in the department will assist with support needs as is done with all other Mathematics & Statistics courses.
Tuition rate of $292/CH is for FY19 and may increase an average of 4.67% each year based on historical trends.

New courses will either be absorbed into existing tenure-track faculty loads or if a new course replaces a course for an instructor, an adjunct will be required to cover the lower level course.  If enrollment increases substantially to require new faculty lines, new tenure-track or lecturer positions will be requested.
Current adjunct pay rate for those holding Master's sdegrees in FY19 of $630/CH is also apt to increase.   We assume one three-hour course per semester will be reassigned to an adjunct, meaning 6 CH/yr, so 6x$630 = $3,780/yr.
The new program will eventually replace the BA/BS in Secondary Mathematics. (Although this is a new program, the old program is expected
The program will undergo Kansas State Department of Education evaluation for accreditation.  Two of the new courses were developed to
All classes will be taught in existing facilities.  Software for the new courses will be the same as for other mathematics classes.
New courses will be developed by Drs. Sharp, Wagner & Cook, who will teach courses in both the mathematics track and the new secondary education track.
The $500 budgeted for marketing/advertising of the new secondary math track will come from mathematics discretionary funds held at the
Initially, we hope to transition existing students to the new B Ed degree and attrack 5 new students into the new secondary education track
 Assuming a 4-year time horizon to graduation, enrollment in the new track would stabilize at 23 students each year by year 4.