

ARMF – Academic Resource Management Form

Effective Spring 2016

Directions: This form should be completed using 11-point font or larger, and should be no longer than six pages (excluding the signature/comment pages and references). For purposes of expediting the resource review, forms may be forwarded electronically by the initiator and from one administrative level to another.

Procedures:

1. Initiator of proposal for curriculum/program change completes ARMF and submits to appropriate chairperson/supervisor.
2. Chairperson/supervisor reviews ARMF, provides comments, and forwards to appropriate Dean.
3. Dean reviews ARMF, provides comments, and forwards to Office of Provost.
4. Office of Provost sends electronic copies of ARMF to a committee called the Academic Resource Management Committee (ARMC) composed of the Provost, Academic Deans, Vice President of Finance and Administration (or designee), and University Faculty Senate President (or designee).
5. Office of the Provost will schedule a meeting. An electronic copy of the proposal will be sent to all faculty five working days in advance of the meeting.
6. Meeting dates will be held on a regular schedule – third Tuesday of the month - during the academic year beginning in September and ending in April. An additional meeting date will be offered in July.
7. During the meeting, the initiator will present information on his/her proposal to the ARMC. The initiator may invite others to present information on behalf of the proposal.
8. Following the presentation, the ARMC will vote on the proposal. The vote will determine whether the Committee:
 - a. recommends immediate use of resources in support of the proposal,
 - b. recommends that the proposal be held in abeyance until such time when resources may be available, or
 - c. does not recommend use of resources for the proposal.
9. Recommendation is forwarded by ARMC to initiator.

Name(s) of proposal initiator(s): Doug Darbro

Department(s)/College(s): Mathematical Sciences

Type of curriculum change (check one):

<input type="checkbox"/> New major requiring new courses/resources

<input checked="" type="checkbox"/> New Concentration in existing degree/program

<input type="checkbox"/> Curricular customization of existing program for off-campus cohort group

<input type="checkbox"/> New Minor or certificate requiring 3 or more new courses and/or new resources

<input type="checkbox"/> Existing program redirection or shift in emphasis (3 or more new courses and/or new resources). If program is adding the same number of courses as it is eliminating (= no net change in number of courses), no ARMF is necessary.

1. Name of degree, major, concentration, certificate, or minor. Briefly describe the curriculum plan/template. Major in Mathematical Sciences with an Actuarial Sciences Concentration. In addition to the GEP requirement of 35 credit hours, which includes the 1 credit hour first-year experience course, this proposal includes 34 credit hours in the mathematical sciences core, 15 credit hours in the actuarial science concentration, 3 credit hours for a computer science elective, 6 credit hours in supporting courses (ECON2201 and ECON2202), and 27 credit hours of general electives. The total credit hours required is 120.
2. Target date for implementation. Fall Semester, 2017
3. Briefly explain the rationale for this initiative. If the initiative involves customization of an existing program for delivery to an off-campus cohort group, also explain the nature of the proposed curricular customization. The rationale for this initiative is program development, which will lead to increased enrollment of math majors.
4. Are there similar programs at other Ohio or regional universities? If so, where? What is the enrollment in the other programs? Yes; Be An Actuary (<http://www.beanactuary.org/>) reports there are eleven universities and colleges in Ohio that offer certificates and degrees in actuarial sciences, with a total enrollment of 216 students. The universities and colleges are Ashland University, Bowling Green State University, Kent State University, Miami University, Ohio Northern University, Otterbein University, The Ohio State University, The University of Findlay, University of Akron, University of Cincinnati, and Youngstown State University. It's my understanding that Columbus State is currently designing an actuarial sciences major to be offered soon.
5. Briefly explain any similarities of the proposed initiative (program objectives and/or curriculum) with already established SSU programs: The actuarial sciences concentration includes the same core courses as the major in mathematical sciences, but replaces the mathematical electives option with 15 credit hours (five courses) that focuses on content in the first two actuarial exams.
6. Briefly describe indicators of the employment market for students completing this initiative, including sources used for employment information/data. The Bureau of Labor Statistics (<http://www.bls.gov/ooh/math/actuaries.htm>) reports an anticipated 18% increase in actuarial science positions/jobs over the next 8 years, which is much faster than average. The median annual wage for actuaries in May 2014 was \$96,700.
7. Briefly describe indicators of potential student interest/demand for the new initiative, including sources used for student market information/data. It's very difficult to predict student interest and demand for a program that has yet to be offered; however, the University of Cincinnati began its program in 2013 with two students. They currently enroll 43 students who are pursuing an actuarial science major.
8. To what extent will this initiative draw new students to SSU? To what extent will it draw students from existing programs? Considering the beginning pay and being a top ranked job, this concentration will attract high school students, college students who have yet to declare a major, perspective students who are mid-career or unemployed, and veterans. Students currently majoring in business, economics, finance, and traditional mathematics have been shown to switch majors when universities add actuarial sciences programs.

9. Approximately how many students are expected to enroll? Include rationale for estimates.

2 – 5 students in the first year? __

10 – 15 students after three years?

These estimates are based on the program at the University of Cincinnati.

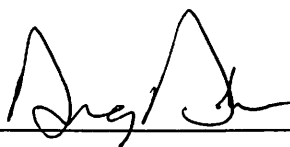
10. At which SSU campuses/regional centers or other sites will the initiative be offered? The main campus.

11. Will Internet or other distance learning technology be used for course/program delivery? Describe. No web based resources will be used for the program delivery.

Complete questions 12, 13, 14 in consultation with department administrator and/or dean.

12. Provide a rough estimate of the resources needed to implement the initiative. Please attach a three year budget to include faculty salaries plus benefits, library materials estimate, equipment and classroom materials estimate, and renovation estimate. No additional faculty positions are needed. Current library materials, equipment, and classroom materials used to deliver the mathematics major will be used in this concentration. Course release time (2 credit hours) is requested for the following activities: (1) design MATH**** Mathematical Statistics I; (2) design MATH*** Mathematical Statistics II; (3) design MATH*** Interest Theory I; (4) design MATH**** Interest Theory II; and (5) design MATH**** Actuarial Science Seminar. Additional course release time (3 credit hours) is requested for two professors who will teach the Actuarial Science Seminar to study for and pass the first two actuarial science exams. Costs associated with taking the two exams is also requested. Approximate costs for 16 credit hours release time (based on an annual salary of \$62,500) including benefits (at 16.95%) is \$50,000. It is possible that there may be grant funds available to help offset the initial costs of beginning this concentration.
13. Project the resources that could come from reallocation within the department or college and the new resources that would be required. N/A
14. Are there new space needs? If so, how much? How would the space be used? Has existing space been identified? If so, where? Is renovation/remodeling necessary? No new space is needed; additional classrooms may be required.
15. Is there professional accreditation for the program? Is it required or voluntary? Will accreditation be sought, and when? What will be the one- time and ongoing costs of accreditation? Professional accreditation is not required. However, courses with content directly tied to Economics, Corporate Finance, and Applied Statistical Models will need to be approved for Validation for Educational Experience (VEE) credit.
16. Has there been preliminary discussion with other departments/colleges that will be involved in course/program delivery? If yes, what was the feedback? There has been no communication with other departments.

Department Faculty's signature: _____



Date 4/22/16

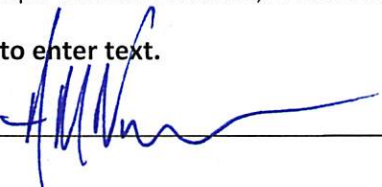
Note: Faculty signatories are tenure-track faculty who are involved with initiation of the proposal or who are collaborating with an administrator on the proposal.

Comments: **Click here to enter text.**

Department Chair's signature:  Date 4/22/16

Note: If this is an interdepartmental initiative, include additional Department Chairs' signatures

Comments: **Click here to enter text.**

Dean's signature:  Date 5/24/2016

- For cross-college initiatives, include additional signature(s) of Dean(s)
- For existing programs customized for off-campus delivery to a cohort group, include College and Deans' signatures

Comments: **Click here to enter text.**

Provost's Signature: _____ Date _____

☐ Recommendation of immediate availability of resources in support of the proposal.

Comments and/or suggestions: **Click here to enter text.**

☐ Recommendation for proposal to be held in abeyance.

Comments and/or suggestions: **Click here to enter text.**

☐ Not recommended for use of resources.

Comments and/or suggestions: **Click here to enter text.**