REQUEST FOR PROGRAM CHANGE(S)

University of Central Oklahoma

Please note: All information contained in this form will be reviewed by persons outside of your college. Please use clear and concise language when completing this form.

Name of program-major or minor to be changed: (maximum of 30 spaces)
Existing Name: Chemistry – ACS Certificate

Proposed Name: (if changing)(maximum of 30 spaces)
*Remember when abbreviating names, this is how they will appear on student’s transcripts.
No change
Proposed Name: (full name of program/major if longer than 30 spaces)

Is this a: ____ Program X Major ____ Minor ____ Sequence of Courses

Proposed change: ___ Name Change ___ Degree Designation ___ Admission Requirement ___ Curriculum Change ___ GPA Requirement X Other: Elective Credit Hours

Is this program: X Undergraduate ____ Graduate

Is this a teacher preparation program? (All courses required for any teacher preparation program must have approval from the Council on Teacher Education (CTE) before approval from AACC or Graduate Council.)
Yes X No If yes, send copy of proposal to the Director of Teacher Education, Dr. Bryan Duke.

CTE Approval (Stamp or initial) ____________________________

Chemistry
Department submitting the proposal

Eric Eitrheim eeitheim@uco.edu
Person to contact with questions email address

Approved by:

9/04/2020 9/04/2020

Department Chair College Curriculum Committee Chair
Date Date

9/22/2020

College Dean
Date

Academic Affairs Curriculum or Graduate Council Date

Office of Academic Affairs Date

Effective term for this program change
(Assigned by Academic Affairs)

Academic Affairs Form
May, 2014

Functional review 9/14/2020
(undergraduate proposals only)
1. Does this program change affect other programs or departments?
   - Yes ☑ No □
   If yes, provide name(s) of department chair(s) contacted, date(s), and results of discussion(s).

2. Proposed curriculum change(s):
   (Please include entire major/minor as it exists and as it is proposed. Italicize and bold changes.)
   FROM
   (Existing Catalog Requirements)
   (Support Courses)
   Support Courses..............................................0-6
   Required Courses:
   *MATH 1533 Precalculus-Algebra OR
   MATH 1513 College Algebra OR Placement Score AND
   *MATH 1593 Plane Trigonometry OR Placement Score

   *A grade of ‘C’ or better is required for either MATH 1513 or MATH 1533 and MATH 1593 to take MATH 2313.

   Major Requirements
   Chemistry - ACS Certificate.................................76
   Common Core.................................................47
   Required courses:
   CHEM 1103 General Chemistry I
   CHEM 1112 General Chemistry I - Recitation/Lab
   CHEM 1223 General Chemistry II
   CHEM 1232 General Chemistry II - Recitation/Lab
   CHEM 2104 Quantitative Analysis and Lab
   CHEM 2621 Professionalism in Chemistry I
   CHEM 3303 Organic Chemistry I
   CHEM 3312 Organic Chemistry I Lab
   CHEM 3323 Organic Chemistry II
   CHEM 3332 Organic Chemistry II Lab
   CHEM 3454 Fundamentals of Instrumental Analysis and Lab
   CHEM 3621 Professionalism in Chemistry II
   MATH 2313 Calculus I
   MATH 2323 Calculus 1
   MATH 2333 Calculus 3
   PHY 2104 Physics for Science and Engineering I and Lab
   PHY 2114 Physics for Science and Engineering I and Lab

   Elective Chemistry (3000/4000 level) .................... 7
   (CHEM 3203 will not apply.)

   Electives to bring total to...............................124

   The following are highly recommended:
   CHEM 4454 Advanced Instrumental Analysis and Lab
   ENG 4023 Technical Writing
   MATH 2343 Calculus 4
   PHY 3103 Modern Physics

   Minimum Grade Requirements
   1. Average in (a) all college course work, and (b) course work at UCO.................................2.25

   TO
   (Proposed Catalog Requirements)
   (Support Courses)
   Support Courses..............................................0-6
   Required Courses:
   *MATH 1533 Precalculus-Algebra OR
   MATH 1513 College Algebra OR Placement Score AND
   *MATH 1593 Plane Trigonometry OR Placement Score

   *A grade of ‘C’ or better is required for either MATH 1513 or MATH 1533 and MATH 1593 to take MATH 2313.

   Major Requirements
   Chemistry - ACS Certificate.................................75
   Common Core.................................................47
   Required courses:
   CHEM 1103 General Chemistry I
   CHEM 1112 General Chemistry I - Recitation/Lab
   CHEM 1223 General Chemistry II
   CHEM 1232 General Chemistry II - Recitation/Lab
   CHEM 2104 Quantitative Analysis and Lab
   CHEM 2621 Professionalism in Chemistry I
   CHEM 3303 Organic Chemistry I
   CHEM 3312 Organic Chemistry I Lab
   CHEM 3323 Organic Chemistry II
   CHEM 3332 Organic Chemistry II Lab
   CHEM 3454 Fundamentals of Instrumental Analysis and Lab
   CHEM 3621 Professionalism in Chemistry II
   MATH 2313 Calculus I
   MATH 2323 Calculus 1
   MATH 2333 Calculus 3
   PHY 2104 Physics for Science and Engineering I and Lab
   PHY 2114 Physics for Science and Engineering I and Lab

   Elective Chemistry (3000/4000 level) .................... 6
   (CHEM 3013 & CHEM 3203 will not apply.)

   Electives to bring total to...............................124

   The following are highly recommended:
   CHEM 4454 Advanced Instrumental Analysis and Lab
   ENG 4023 Technical Writing
   MATH 2343 Calculus 4
   PHY 3103 Modern Physics

   Minimum Grade Requirements
   1. Average in (a) all college course work, and (b) course work at UCO.................................2.25

   Functional review CF

   (undergraduate proposals only)
2. A minimum grade of “C” must be earned in all courses in the major to count toward meeting degree requirements.

3. Degree Designation: (Example, B.A. to B.F.A.)
   Existing Designation: N/A To: 

4. Change(s) in Minimum GPA Requirements:
   FROM (Existing Catalog Requirements) TO (Proposed Catalog Requirements)
   No Change

5. Change(s) in Admission Requirements for the Program/Major:
   FROM (Existing Catalog Requirements) TO (Proposed Catalog Requirements)
   No Change

6. Other requested action:
   No Change

7. Will requested change require additional funds? ___ Yes ___ No
   If yes, please specify the amount of the additional costs, the source of the funds, and how they will be expended over the next three years, including new or re-allocated full or part time faculty/staff.

   Additional Funds
   | Amount of additional costs | 20 | 20 | 20 |
   | Source of funds
   | How funds will be expended

8. Please provide a summary of the requested changes. (This is a listing of the changes requested) (This information will be submitted to the OSRHE)
   We would like to change the upper-level electives required to 6 credit hours from 7 which will change the major requirements from 76 to 75 credit hours and the Advanced Chemistry ACS approved hours from 29 to 28.
   We would like to exclude CHEM 4454 from the highly recommended list.
   Clarifying that CHEM 3013 cannot count as an upper-level elective.

9. The reason(s) for this change are based on which of the following: (Check all that apply; explain and document in Question #10)
   ___ Specialized Accreditation
   ___ SSCI (Self Study for Continuous Improvement)
   ___ Benchmark (e.g. comparison to peer institutions)
   ___ Assessment Data
   ___ Faculty Knowledge/Discipline Expertise
   ___ Advisory Board/Outside Professional Group
   ___ Other

10. For all items checked in Question #9, please provide a concise, yet comprehensive, statement that explains the reasons for requesting the change including any necessary documentation. (The information provided here will be submitted to the OSRHE)
    We primarily have upper-level courses that are 3 credit hours with only one course not required in this major that is 4 credit hours. The current allocation incentivizes students to take the 4 credit hour course (CHEM 4454) instead of the other 3 credit hour electives, which is not the intent.
We would like to exclude CHEM 4454 from the highly recommended list because we are also proposing changing the pre-requisites for that class. We are clarifying that CHEM 3013 cannot count as an upper-level elective since both CHEM 3303 (a requirement for the major) and CHEM 3013 cannot be both taken for credit.
12. State Regents Math Initiative Questions: (For undergraduate degree programs only)

As part of the broader work of the Mathematics Success Initiative, the Math Pathways Task Force has identified four gateway mathematics courses that are suitable general education mathematics course options. These courses, *College Algebra/Pre-Calculus*, *Introduction to Statistics*, *Functions and Modeling*, and *Quantitative Reasoning*, are included on the Course Equivalency Project transfer matrix and provide rigorous mathematical content that is more relevant and appropriate for specific academic majors.

Please respond to the following questions:

1. Which mathematics course is required as part of the general education requirements? If the program allows for multiple gateway mathematics course options, provide a rationale for each.

   **MATH 1513 College Algebra or MATH 1533 Pre-calculus Algebra.**

   While both courses contain the material required for inclusion on the CEP, MATH 1533 includes additional topics at a higher level of rigor making it a more suitable prerequisite to Calculus 1. MATH 1513 is currently on the CEP matrix under the Algebra for STEM pathway. Including this option assists students with transferability, as well as those students who took MATH 1513 prior to the creation of MATH 1533.

2. Describe how the mathematics course was selected and how it best meets the needs of the program’s students.

   Calculus 1 is required to obtain this degree. MATH 1513 and MATH 1533 both satisfy the algebra prerequisite for Calculus 1.

3. How does this mathematics course articulate with your partner institutions?

   Currently, MATH 1513 is included on the transfer matrix under the Algebra for STEM pathway i.e., the pathway intended for those students progressing on to Calculus 1.