## UNDERGRADUATE COUNCIL <br> Request for Change(s)

Originating unit requesting change College of Education
Type of Change requested:
$\left.\begin{array}{ll|}\square & \text { Course number(s) } \\ \square & \square \\ \square & \text { Course title }\end{array}\right) \quad \square$

Course prerequisite(s)
Drop course(s) $\quad \square$ Program description
Drop program(s) $\quad \square$ Program requirements
Semester and year change(s) take effect: Fall 2023
Appropriate computer abbreviation if course title is more than 30 spaces:

Briefly summarize the change requested:
The College of Education proposes to change the BSE in "Middle School Science" to a BSE in "Science Education" and to reduce this program to 120 credit hours.

## Programs Only

Program Name: $\qquad$
Current Code: $\qquad$ Proposed New Code (list 2): $\qquad$ or $\qquad$ (ex: INDE-BFA)

Can have second major: $\qquad$ Yes $\qquad$ No

Current 6-digit CIP Code: $\qquad$
Does the change require a new or change in CIP code? $\qquad$ Yes $\qquad$ No

If yes, what is the proposed 6-digit CIP code?
*for reference, please visit: https://nces.ed.gov/ipeds/cipcode/resources.aspx?y=56

## Catalog copy

Present catalog copy (paste-up from catalog is acceptable.
See attached

Proposed change(s). (Include exact catalog copy as desired. Underline changes)
See attached

1. What is the justification for the change(s) requested?

Currently our secondary teacher science majors are (a) separate programs, (b) require $3 x s$ more content hours (40+) in science than the Texas Education Agency requires for teacher certification (only 15 hours), \& (c) only our middle school science major captures all science content areas. Renaming this BSE as "Science Education," reducing the number of content hours to 21 hours, \& expanding this program to include our existing secondary science education certification pathways will make the program more marketable, flexible \& attainable for TCU students.
2. If applicable, explain how the change(s) will affect the current program outcomes and assessment mechanisms.

Program outcomes and assesment mechanisms will not change.
3. Faculty Resources: How will the unit provide faculty support for this change and any other impact this change may have on other current departmental listings.
4. Educational Resources: Will this change require additional resources not currently available (e.g. space, equipment, library, other)? If yes, list additional resources needed.


N/A
5. If this change affects other units of the University, include a statement signed by the chairperson(s) of the affected unit(s).
6. If cross-listed, provide evidence of approval by all curriculum committees appropriate to both the originating and cross-listed units.
$\overline{\text { Approval signature of chairperson of originating unit }}$

## CURRENT MARKUP

## Middle School Education, BS-Mathematics, Science or Social Studies

Middle school education (grades 4-8) is designed for students who want to teach in a specific content area (mathematics, science, or social studies) in elementary and middle school settings.

Total Semester Hours Required for Degree: 124
TCU Core Curriculum: 39 hours

Prior to Entry into College of Education: 9 hours

| EDUC 20003 | Critical Investigation: Teaching and Learning | 3 |
| :--- | :--- | :--- |
| EDUC 41113 | Schools, Curriculum, and Society | 3 |
| EDUC 30103 | Developmental Psychology of Adolescence | 3 |
|  |  |  |
| Junior Year: 17-20 hours |  | 3 |
| EDUC 30113 | Digital Literacy, Learning, and Citizenship in Education | 3 |
| EDUC 30123 | Educational Psychology | 3 |
| EDUC 30603 | Study of Exceptional Students | 3 |
| EDMS 41151 | Social Entrepreneurship in Education | 3 |
| EDUC 40123 | Content Methods Courses | 3 |

## Content Methods Courses refer to content area course requirements

Senior Year/Semester 1: 8 hours

| EDUC 30001 | Professional Practice Seminar | 1 |
| :--- | :--- | :---: |
| EDUC 50063 | Seminar in Teaching Gifted and Talented Children | 3 |
|  | OR | 3 |
| EDSP 55663 | Motivating and Managing Students in the Classroom | 1 |
| EDMS 41151 | Field Experience in Education | 3 |
| EDMS 51103 | Assessment | 3 |
|  | OR | 3 |
| EDUC 55313 | Educational Assessment |  |

Senior Year/Semester 2: 6 hours

| EDMS 40986 | Student Teaching in the Middle School | 6 |
| :--- | :--- | :---: | :---: |
| ODUC 55980 | OR | $1-6$ |



| GEOL 30113 | Weather and Climate | 3 |
| :---: | :---: | :---: |
| MATH 10054 | Precalculus with Trigonometry | 4 |
|  | OR |  |
| MATH 10524 | Calculus I | 4 |
| PHYS 10154 | General Physics I with Laboratory | 4 |
| PHYS 10273 | Introductory Astronomy: Earth and Planets | 3 |
| PHYS 10283 | Introductory Astronomy: Stars and Galaxies | 3 |
| PHYS 20053 | Physics of Music and Sound | 3 |
| Social Studies (42 Hours) |  |  |
| HIST 10203 | Origins of Western Civilization: Europe to 1348 | 3 |
| HIST 10213 | The World Expanded: Europe 1348-1789 | 3 |
| HIST 10223 | Modernization and its Discontents: Europe 1789 to the Present | 3 |
| HIST 10923 | Latin American History: Colonial Period | 3 |
|  | OR |  |
| HIST 10933 | Latin American History: National Period | 3 |
|  | OR |  |
| HIST 30993 | History of Mexico | 3 |
| HIST 10953 | East Asian Civilization Since 1700 | 3 |
|  | OR |  |
| HIST 10813 | Introduction to the Modern Middle East | 3 |
| HIST 40743 | History of Texas | 3 |
| POSC 35XX3 | Any course in Comparative Politics |  |
| ECON 10223 | Introductory Microeconomics | 3 |
| ECON 10233 | Introductory Macroeconomics | 3 |
| ECON, HIST or POSC | Upper Division Elective |  |
| GEOG 10003 | World Regional Geography | 3 |
| GEOG 20013 | Human Geography | 3 |
|  | OR |  |
| GEOG 30723 | Cultural Geography | 3 |


|  | OR |  |
| :--- | :--- | :--- |
| GEOG 30713 | Urban Geography | 3 |
|  | OR |  |
| GEOG 30513 | Geography of the United States | 3 |
|  |  |  |
| SOCI 20213 | Introductory Sociology | 3 |
| Sociology of Race and Racism | 3 |  |
| OR 30343 | Diversity in American Education | 3 |
| EDUC 50003 |  | 3 |
|  | Methods for Teaching Middle School Social Studies | 3 |

## PROPOSED MARKUP

## Middle School Education, BS-Mathematics, Science-or Social Studies

Middle school education (grades 4-8) is designed for students who want to teach in a specific content area (mathematics, science, or social studies) in elementary and middle school settings.

Total Semester Hours Required for Degree: 124
TCU Core Curriculum: 39 hours

Prior to Entry into College of Education: 9 hours

| EDUC 20003 | Critical Investigation: Teaching and Learning | 3 |
| :--- | :--- | :---: |
| EDUC 41113 | Schools, Curriculum, and Society | 3 |
| EDUC 30103 | Developmental Psychology of Adolescence | 3 |

Junior Year: 17-20 hours

| EDUC 30113 | Digital Literacy, Learning, and Citizenship in Education | 3 |
| :--- | :--- | :--- |
| EDUC 30123 | Educational Psychology | 3 |
| EDUC 30603 | Study of Exceptional Students | 3 |
| EDMS 41151 | Field Experience in Education | 1 |
| $\underline{\text { EDUC 40123 }}$ | Social Entrepreneurship in Education | 3 |
|  | Content Methods Courses | $3-$ |

## Content Methods Courses refer to content area course requirements

Senior Year/Semester 1: 8 hours

| EDUC 30001 | Professional Practice Seminar | 1 |
| :--- | :--- | :---: |
| EDUC 50063 | Seminar in Teaching Gifted and Talented Children | 3 |
|  | OR | 3 |
| EDSP 55663 | Motivating and Managing Students in the Classroom | 1 |
| EDMS 41151 | Field Experience in Education | 3 |
| EDMS 51103 | Assessment | 3 |
|  | OR | 3 |
| EDUC 55313 | Educational Assessment |  |


| Senior Year/Semester 2: | 6 hours |  |
| :--- | :--- | :--- |
| EDMS 40986 | Student Teaching in the Middle School | 6 |
|  | OR | $1-6$ |
| EDUC 55980 | Advanced Clinical Teaching | 1 |

## Content Area Course Requirements

Mathematics (38-40 Hours)

| EDMS 50443 | Methods for Teaching Middle School Mathematics I | 3 |
| :---: | :---: | :---: |
| EDMS 50453 | Methods for Teaching Middle School Mathematics II | 3 |
| EDUC 20023 | Mathematics for Teachers of Early Childhood through Eighth Grade | 3 |
| MATH 10524 | Calculus I | 4 |
| MATH 20524 | Calculus II | 4 |
| MATH 10043 | Elementary Statistics | 3 |
| MATH 20123 | Discrete Mathematics I | 3 |
| MATH 40403 | Higher Geometry | 3 |
| MATH 50073 | History of Mathematics | 3 |
| MATH 10033 | Topics in Mathematics | 3 |
|  | OR |  |
| MATH 30803 | Probability | 3 |
|  | OR |  |
| MATH 30123 | Discrete Mathematics II | 3 |
|  | OR |  |
| MATH 30224 | Linear Algebra | 4 |
|  | OR |  |
| MATH | Upper level 30000 and above math |  |


| PHYS 10154 | General Physics I with Laboratory | 4 |
| :---: | :---: | :---: |
|  | OR |  |
| PHYS 20053 | Physics of Music and Sound | 3 |
| Science (46 Hours) |  |  |
| BIOL 10003 | Contemporary Issues in Biology | 3 |
| BIOL 10501 | Introductory Biology Lab- | 1 |
| BIOL 10503 | The Unity of Life: Molecules to Cells | 3 |
| BIOL 10511 | Introductory Biology Lab II | 1 |
| B1OL 10513 | The Diversity of Life: Organisms to Ecosystems | 3 |
| B1OL 30613 | Natural History | 3 |
| CHEM 10113 | General Chemistry 1 | 3 |
| EDMS 50553 | Methods for Teaching Middle School Science | 3 |
| ENSC 10143 | Contemporary Environmental Issues | 3 |
| GEOL 10113 | Understanding the Earth | 3 |
| GEOL 30113 | Weather and Climate | 3 |
|  | - |  |
| MATH 10054 | Precalculus with Trigonometry | 4 |
|  | OR |  |
| MATH 10524 | Calculus 1 | 4 |
|  | - |  |
| PHYS 10154 | General Physics / with Laboratory | 4 |
| PHYS 10273 | Introductory Astronomy: Earth and Planets | 3 |
| PHYS 10283 | Introductory Astronomy: Stars and Galaxies | 3 |
| PHYS 20053 | Physics of Music and Sound | 3 |
| Social Studies (42 Hours) |  |  |
| HIST 10203 | Origins of Western Civilization: Europe to 1348 | 3 |
| HIST 10213 | The World Expanded: Europe 1348-1789 | 3 |
| HIST 10223 | Modernization and its Discontents: Europe 1789 to the Present | 3 |
| HIST 10923 | Latin American History: Colonial Period | 3 |
|  | OR |  |
| HIST 10933 | Latin American History: National Period | 3 |
|  | OR |  |
| HIST 30993 | History of Mexico | 3 |


| HIST 10953 | East Asian Civilization Since 1700 | 3 |
| :---: | :---: | :---: |
|  | OR |  |
| HIST 10813 | Introduction to the Modern Middle East | 3 |
| HIST 40743 | History of Texas | 3 |
| POSC 35XX3 | Any course in Comparative Politics |  |
| ECON 10223 | Introductory Microeconomics | 3 |
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| ECON, HIST or POSC | Upper Division Elective |  |
| GEOG 10003 | World Regional Geography | 3 |
| GEOG 20013 | Human Geography | 3 |
|  | OR |  |
| GEOG 30723 | Cultural Geography | 3 |
|  | OR |  |
| GEOG 30713 | Urban Geography | 3 |
|  | OR |  |
| GEOG 30513 | Geography of the United States | 3 |
| SOCI 20213 | Introductory Sociology | 3 |
| SOCI 30343 | Sociology of Race and Racism | 3 |
|  | OR |  |
| EDUC 50003 | Diversity in American Education | 3 |
| EDMS 40463 | Methods for Teaching Middle School Social Studies | 3 |

## Bachelor of Science in Education (B.S.E.): Science Education

The B.S.E. in Science Education prepares individuals who want to teach in middle and/or high school settings. Texas teacher certification pathways associated with this degree include: middle school science (grades 4-8), secondary life science (grades 7-12), secondary physical science (grades 6-12), secondary physics/math (grades 712), and secondary chemistry (grades 7-12).

Total Semester Hours Required for Degree: 120
TCU Core Curriculum: 39 hours

Prior to admission to the Teacher Education Program: 9 hours

| EDUC 20003 | Critical Investigation: Teaching and Learning | $\underline{3}$ |
| :--- | :--- | :---: |
| EDUC 41113 | Schools, Curriculum, and Society | $\underline{3}$ |
| EDUC 30103 | Developmental Psychology of Adolescence -or- | $\underline{3}$ |
| EDUC 30143 | Child and Adolescent Development |  |

In addition, students must complete at least 21 hours of content in the discipline(s) aligning with their Teacher Education Program content pathway. At least 15 of these content hours must be completed prior to admission to the Teacher Education Program.

Courses with prefixes of BIOL, CHEM, PHYS, and GEOL can be used to satisfy middle school science (grades 4-8) content requirements. Courses with prefixes of BIOL and CHEM can be used to satisfy secondary life science (grades 7-12) content requirements. Courses with prefixes of PHYS can be used to satisfy secondary physical science (grades 6-12) content requirements. Courses with prefixes of PHYS and MATH can be used to satisfy secondary physics/math (grades 7-12) content requirements. Courses with the prefix of CHEM can be used to satisfy secondary chemistry (grades 7-12) content requirements.

Post-admission to the Teacher Education Program: 24 hours

| EDUC 30113 | Digital Literacy, Learning, and Citizenship in Education | 3 |
| :---: | :---: | :---: |
| EDUC 30123 | Educational Psychology | $\underline{3}$ |
| EDUC 30603 | Study of Exceptional Students | $\underline{3}$ |
| EDUC 40213 | Promoting Literacy in the Content Areas | $\underline{3}$ |
| EDSE 50453 EDMS 50453 EDUC 50023 | Secondary Science Methods -or- <br> Middle School Science Methods -or- <br> Effective Teaching \& Classroom Implementation | $\underline{3}$ |
| EDSE 51103 <br> EDMS 51103 | Assessment-orAssessment | $\underline{3}$ |
| EDUC 30003 | Professional Practice Seminar | $\underline{3}$ |
| EDUC 50663 | EDUC 50663 Motivating \& Managing | $\underline{3}$ |

Fieldwork and Clinical Teaching: 18 hours

| $\frac{\text { EDSE } 41151}{\text { EDMS } 41151}$ | Field Experience -or- <br> Field Experience (taken Junior 1) | 1 |
| :---: | :---: | :---: |
| EDSE 41151 | Field Experience -or- | $\underline{1}$ |
| EDMS 41151 | Field Experience (taken Junior 2) |  |
| EDSE 41151 | Field Experience -or- | $\underline{1}$ |
| EDMS 41151 | Field Experience (taken Senior 1) |  |
| EDSE 40986 | Secondary Student Teaching* -or- | $\underline{6}$ |
| EDMS 40986 | Middle School Student Teaching* (last semester, Senior 2), |  |

Note: all other coursework should be completed prior to entering the student/clinical teaching semester

