# http://www.ric.edu/webcommunications/images/SealWithText_Small_Black.pngUNDERGRADUATE CURRICULUM COMMITTEE (UCC)PROPOSAL FORM

## Cover page scroll over blue text to see further important [instructions](#instructions): please read.

**N.B. DO NOT USE HIGHLIGHT, please DELETE THE WORDS THAT DO NOT APPLY TO YOUR PROPOSAL**

**ALL numbers in section (A) need to be completed, including the impact ones.**

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| A.1. [Course or program](#30j0zll) | **ELEMENTARY EDUCATION B.A. TEACHING CONCENTRATION IN MIDDLE LEVEL MATHEMATICS**  |  |
| [Replacing](#2et92p0)  | **Elementary Education B.A. (content major in Mathematics)**  |
| A.2. [Proposal type](#tyjcwt) | **Program:** [**revision**](#1t3h5sf)**Course: revision** |
| A.3. [Originator](#4d34og8) | **Anne Goodrow**  | [Home department](#2s8eyo1) | **Elementary Education** |
| A.4. [Context and Rationale](#17dp8vu)  | The Elementary Education Department has carefully reviewed its programs to propose changes that will result in deeper and broader preparation for teacher candidates. The changes are a result of feedback from our PK-12 Elementary Education partners, feedback from teacher candidates, and feedback from the recent RI Dept. of Education report. The Elementary Education Department is revising its BA in Elementary Education with a Teaching Concentration in Mathematics to a BA in Elementary Education with a Teaching Concentration in Middle Level Mathematics. This proposal includes changes to the Elementary Education professional course requirements and to the existing mathematics content major. This dual certification program will add one extra semester to become a 4.5-year program but upon graduation our students will be certified to teach in an elementary classroom (grades 1-6) and a middle school mathematics classroom (grades 5-8). This dual certification change responds to needs in the Rhode Island teaching job market, in particular the need for middle level teachers of mathematics.This proposal includes two new Elementary Mathematics Education courses. ELED 238: Teaching Functions and Algebra and ELED 248: Teaching Data and Statistics. ELED 238: Teaching Functions and Algebra* Because algebraic thinking is embedded throughout mathematics, even in the elementary years, it is essential that teacher candidates understand structures, patterns and generalizations, and the meaningful use of symbols and other representations that arise in our number system, in the properties of operations, and in functional relationships. These topics and others will be central to this 2-credit course, which is aligned to the Common Core State Standards for Mathematics (CCSS-M),and will feature mathematical investigations in an inquiry-based teaching and learning model, and in doing so, integrate technology.

ELED 248: Teaching Data and Statistics* To teach data and statistics well, teacher candidates must develop deep understanding of not only statistics content, but also the ways in which students learn statistics in the elementary and middle grades. The American Statistical Association describes students’ learning of statistics as a developmental process; in this 2-credit inquiry-based course teacher candidates learn statistics content and how they can help students develop understanding of that content. Teacher candidates will also develop statistical thinking. Statistical thinking, in large part, must deal with this omnipresence of variability; statistical problem solving and decision making depend on understanding, explaining, and quantifying the variability in the data. Statistics requires a different kind of thinking, because data are not just numbers, they are numbers with a context.

**RIDE requirements for middle level mathematics certification:*** 21 semester hours in Math, including calculus
* Completion of a minimum of 45 hours of practicum in this certification area
* Demonstration of meeting the Content Competencies as prescribed by the National Council of Teachers of Mathematics (NCTM) with a minimum of 21 semester hours of coursework in mathematics; and the pedagogical competencies of the Association for Middle Level Education (AMLE).

<http://www.ride.ri.gov/Portals/0/Uploads/Documents/Teachers-and-Administrators-Excellent-Educators/Educator-Certification/Cert-Requirements/RI_MiddleGrades_Requirements.pdf> **Admissions:** The admissions requirements for the previous programs, the Elementary Education BS and the Elementary Education BA with content major in mathematics, were the same. This BA in Elementary Middle Level Mathematics admissions will adopt the same prerequisites as the BS, including the POL 202 or GEOG 200 which replaces the POL 201. **Note:** Changes in ELED Course Numbers and Prerequisites* Retention requirements for change in course number from ELED 302 to 202 was submitted and approved as part of the ELED/SPED proposal at the 02/19 UCC.
* Course number and prerequisites update for ELED/SPED 202 (formerly ELED/SPED 302) was submitted and approved at the 01/19 UCC.
* Prerequisites changes for ELED 436, ELED 437, ELED 438 were submitted and approved at the 02/19 UCC.

This proposal includes the following UCC approved courses: FNED 101, FNED 246, CEP 215, POL 202 or GEOG, PSCI 204, MLED 230, MLED 331, MLED 332, SPED 333 and TESL 401.Many revisions to courses within this program were designed to address specific RI Department of Education expectations and initiatives, including a deeper focus on student assessment, data-driven instruction, equity, and technology.The course being revised is the ELED 437Elementary School Science and Health Education to make sure its prerequisites are in line with the science courses decided upon for the program. |
| A.5. [Student impact](#3rdcrjn) | All revisions to the program are expected to enhance candidates’ content and pedagogical content knowledge. Courses such as those described in A.4. are sorely needed in Rhode Island and at Rhode Island College. It is not enough for teacher candidates to excel in higher-level college mathematics courses. To teach mathematics to elementary and middle level students well, they need to understand: 1) how students learn mathematics, 2) the development of important mathematics concepts over time, 3) how to provide mathematics experiences that foster students’ mathematical learning, 4) how to assess students’ learning and plan for subsequent instruction.  |
| A.6. [Impact on other programs](#19c6y18)  |  |
| A.7. [Resource impact](#3tbugp1) | [*Faculty PT & FT*](#28h4qwu):  | This program may add to the load of current faculty. |
| [*Library*:](#nmf14n) | No impact other than changing reserves. |
| [*Technology*](#37m2jsg) | Program needs include classrooms with available technology, such as document cameras and smart boards. iPads and educational apps will also be important components. |
| [*Facilities*](#1mrcu09): | Adequate classroom space to account for potential changes in scheduling, cohort/practicum models, and group advising/learning opportunities are important for program success. |
| A.8. [Semester effective](#35nkun2) | **Fall 2019** | A.9. [Rationale if sooner than next Fall](#35nkun2) |  |
| A.10. INSTRUCTIONS FOR CATALOG COPY: This single file copy must include ALL relevant pages from the college catalog, and show how the catalog will be revised. (1) Go to the “Forms and Information” page on the UCC website. Scroll down until you see the Word files for the current catalog. (2) Download ALL catalog sections relevant for this proposal, including course descriptions and/or other affected programs. (3) Place ALL relevant catalog copy into a single file. Put page breaks between sections and delete any catalog pages not relevant for this proposal. (4) Using the track changes function, revise the catalog pages to demonstrate what the information should look like in next year’s catalog. (5) Check the revised catalog pages against the proposal form, especially making sure that program totals are correct if adding/deleting course credits. If new copy, indicate where it should go in the catalog. If making related proposals a single catalog copy that includes all is acceptable. Send as a separate file along with this form. |

B. [NEW OR REVISED COURSES](#delete_if)  **DO NOT use highlight. Delete this whole page if the proposal does not include a new or revised course.**

|  | Old ([for revisions only](#Revisions))Only include information that is being revised, otherwise leave blank (delete provided examples that do not apply) | NewExamples are provided for guidance, delete the ones that do not apply |
| --- | --- | --- |
| B.1. [Course prefix and number](#cours_title)  | **ELED 437** |  |
| B.2. Cross listing number if any |  |  |
| B.3. [Course title](#title)  | **Elementary School Science and Health Education** |  |
| B.4. [Course description](#description)  |  |  |
| B.5. [Prerequisite(s)](#prereqs) | ELED 202 or SPED 202, with a minimum grade of B-; ELED 222 and ELED 324, each with minimum grade of B-; BIOL 100, with a minimum grade of C; PHYS 120 with a minimum grade of C, and admission to the elementary education teacher preparation program or consent of the department chair. | Prerequisite: ELED 202 or SPED 202, with a minimum grade of B-; ELED 222 and ELED 324, each with minimum grade of B-; BIOL 100, with a minimum grade of C; PSCI 204, PSCI 208 or PSCI 214 with a minimum grade of C, and admission to the elementary education teacher preparation program or consent of the department chair. |
| B.6. [Offered](#Offered) |  |  |
| B.7. [Contact hours](#contacthours)  |  |  |
| B.8. [Credit hours](#credits) |  |  |
| B.9. [Justify differences if any](#differences) |  |
| B.10. [Grading system](#grading)  |  |  |
| B.11. [Instructional methods](#instr_methods) |  |  |
| B.12.[Categories](#required) |  |  |
| B.13. Is this an Honors course? | **no** |  |
| B.14. [General Education](#ge)N.B. Connections must include at least 50% Standard Classroom instruction. | **no** |  |
| B.15. [How will student performance be evaluated?](#performance) |  |  |
| B.16. [Redundancy statement](#competing) |  |  |
| B. 17. Other changes, if any |  |

C. [Program Proposals](#program_proposals) **complete only what is relevant to your proposal Delete this whole page if the proposal is not revising, creating, deleting or suspending any progam.**

|  | [Old (for revisions only)](#old_program) | New/revised |
| --- | --- | --- |
| C.1. [Enrollments](#enrollments) |  |  |
| C.2. [Admission requirements](#admissions) | NOTE: General admissions for ALL teacher preparation programs are listed in the General Information section of the FSEHD part of the catalog. This program will add specific program admissions requirements to the program section of the catalogue. | Admission to Elementary Education Middle Level Mathematics program include all FSEHD admissions requirements and the following program specific requirements:BIOL 100, GEOG 200 or POL 202 and MATH 143 (C or higher in all). |
| C.3. [Retention requirements](#retention) | 1. A minimum overall GPA of 2.75 each semester.
2. A minimum grade of B- in ELED 300, and recommendation from the instructor.
3. A minimum grade of B- in all other professional courses and a recommendation to continue from each instructor. Courses in the department may be repeated once with a recommendation to retake from the previous instructor.
4. A minimum grade of C in all prerequisite courses offered in the Faculty of Arts and Sciences.

Positive recommendations from all education instructors based on academic work, fieldwork, and professional behavior. | 1. A minimum overall GPA of 2.75 each semester.2. A minimum grade of B- in ELED 202, and recommendation to continue from the instructor.3. A minimum grade of B- in all other professional courses, and a recommendation to continue from each instructor. Courses in the department may be repeated once with a recommendation to retake from the previous instructor.4. A minimum grade of C in all prerequisite courses offered in the Faculty of Arts and Sciences.Students must maintain acceptable standing in academic work, fieldwork, and demonstrate consistent professionalism (as described above) or risk suspension from the B.A. in Elementary Education program. Students must also maintain, at minimum, a 2.5 grade point average in the content area. |
| C.4. [Course requirements](#course_reqs) for each program option | ELEMENTARY EDUCATION B.A.Course RequirementsProfessional Courses

|  |  |  |  |
| --- | --- | --- | --- |
| CEP 315 | Educational Psychology | 3 | F, Sp, Su |
| ELED 300 | Concepts of Teaching Diverse Learners | 3 | F, Sp |
| ELED 400 | Curriculum and Assessment with Instructional Technology | 3 | F, Sp |
| ELED 420 | Children's Literature and the Integrated Arts | 3 | F, Sp |
| ELED 422 | Developmental Reading | 3 | F, Sp |
| ELED 435 | Language Arts and ELL Instruction | 3 | F, Sp |
| ELED 436 | Teaching Social Studies to Diverse Learners | 3 | F, Sp |
| ELED 437 | Elementary School Science and Health Education | 3 | F, Sp |
| ELED 438 | Teaching Elementary School Mathematics | 3 | F, Sp |
| ELED 439 | Student Teaching in the Elementary School | 9 | F, Sp |
| ELED 469 | Best Practices: Instruction, Assessment, Classroom Management | 3 | F, Sp |
| FNED 346 | Schooling in a Democratic Society | 4 | F, Sp, Su |
| SPED 433 | Adaptation of Instruction for Inclusive Education | 3 | F, Sp, Su |

Total Credit Hours: 46Content Major Course Requirements• Content majors include: (A) Multidisciplinary Studies, (B) English, (C) General Science, (D) Math, and (E) Social Studies. • Students who would like to be eligible to pursue a middle grades certificate (5-8) must choose a content major in English, general science, social studies, or math. See Middle Grades Certification coursework for further information.Students who do not want to pursue a middle grades certificate may choose any content major, but multi-disciplinary studies is strongly recommended.D. Content Major in MathematicsIn addition to completing required courses in elementary education, students electing a content major in mathematics must complete the following courses, with a minimum grade point average of 2.50 in the major.Cognates

|  |  |  |  |
| --- | --- | --- | --- |
| ART 210 | Nurturing Artistic and Musical Development | 4 | F, Sp |
| BIOL 100 | Fundamental Concepts of Biology | 4 | F, Sp, Su |
| MATH 143 | Mathematics for Elementary School Teachers I | 4 | F, Sp, Su |
| MATH 144 | Mathematics for Elementary School Teachers II | 4 | F, Sp, Su |
| MATH 324 | College Geometry | 4 | F, Sp |
| POL 201 | Development of American Democracy | 4 | F, Sp, Su |
| PSCI 103 | Physical Science | 4 | F, Sp, Su |

Note: ART 210, BIOL 100, MATH 144, MATH 324, POL 201, PSCI 103: These courses may also apply to General Education requirement.Total Credit Hours: 28Content major courses in Mathematics

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| --- | --- | --- | --- |
| MATH 209 | Precalculus Mathematics | 4 | F, Sp, Su |
| MATH 210 | College Trigonometry | 3 | Sp |
| MATH 212 | Calculus I | 4 | F, Sp, Su |
| MATH 220 | Formalizing Mathematical Thought | 4 | F |
| MATH 240 | Statistical Methods I | 4 | F, Sp, Su |
| MATH 409 | Mathematical Problem Analysis | 4 | F |
| MATH 431 | Number Theory | 3 | F, Sp |

ONE COURSE from

|  |  |  |  |
| --- | --- | --- | --- |
| MATH 418 | Introduction to Operations Research | 3 | Sp (even years) |
| MATH 436 | Discrete Mathematics | 3 | Sp |
| MATH 445 | Advanced Statistical Methods | 3 | Sp |

Total Credit Hours: 29 | **ELEMENTARY EDUCATION BA TEACHING CONCENTRATION IN MIDDLE LEVEL MATHEMATICS****COURSE REQUIREMENTS** **Professional Courses**FNED 101: Introduction to Teaching and Learning (2)FNED 246: Schooling for Social Justice (4)CEP 215: Educational Psychology (4)ELED 202/SPED 202: Teaching All Learners: Foundations and Strategies (4)ELED 222: Foundations of Literacy I: Grades 1-3 (3)ELED 238: Teaching Functions and Algebra (2)ELED 248: Teaching Data and Statistics (2)ELED 324: Foundations of Literacy II: Grades 3-6 (3)ELED 326: Assessment and Intervention in Literacy: Tier 2 (3)ELED 330: Physical Sciences for Elementary School Teachers (2)ELED 436: Teaching Social Studies to Diverse Learners (3)ELED 437: Elementary School Science and Health Education (3)ELED 438: Teaching Elementary School Mathematics (3)ELED 439: Student Teaching in the Elementary School (9)ELED 440: Capstone: STEAM/Project-Based Learning (2)ELED 469: Best Practices: Instruction, Assessment, Classroom Management (3)(52 credits)**Professional Courses in Special Education and Teaching English as a Second Language**TESL 401: Introduction to Teaching Emergent Bilinguals (4)SPED 433: Special Education: Best Practices/ Practical Applications (3) (7 credits)**Professional Courses in Middle Level**MLED 230: Young Adolescent Development in the Context of Schools, Families, and Communities (4)MLED 331: Exploring Disciplinary Literacies with Young Adolescents (4)MLED 332: Curriculum and Assessment for the Young Adolescent (4)(12 credits)*Revisions and Additions of courses listed above were approved by UCC: CEP (11/18), ELED (02/19, FNED (11/19), MLED (11/19), TESL and SPED (01/19*Total credits for Professional Courses: 71**Cognates**ART 210: Nurturing Artistic and Musical Development (4)BIOL 100: Fundamental Concepts of Biology (4)GEOG 200: World Regional Geography (4) or POL 202: American Government (4)MATH 143: Mathematics for Elementary School Teachers I (4)MATH 144: Mathematics for Elementary School Teachers II (4)PSCI 204: Understanding the Physical Universe (4) Note: ART 210, BIOL 100, GEOG 200 or POL 202, MATH 144, PSCI 204 course credits can also apply to General Education requirements.Note. If taking GEOG 200 then must choose HIST 107 from the General Education History distribution. If taking POL 202 any HIST General Education is accepted.Note: All cognates require a minimum grade of C.Total credits for Cognates: 24**Mathematics Content Courses**MATH 209: Pre-Calculus Mathematics (4)MATH 210: College Trigonometry (3)MATH 212: Calculus I (4)MATH 220: Formalizing Mathematical Thought (4)MATH 240: Statistics Methods I (4)MATH 324: College Geometry (4)MATH 409: Mathematical Problem Analysis (4)**Total Credit Hours: 27** |
| C.5. [Credit count](#credit_count) for each program option | 103 | 122 (52 + 7 + 12 + 24 + 27)+ 20 remaining GenEds = 142 |
| C.6. Other changes if any |  |  |
| C.7 [Program goals](http://www-prod.ric.edu/curriculum_committee/documents/Program%20goals)Needed for all new programs |  | The revised ELEMENTARY EDUCATION CONCENTRATION IN MIDDLE LEVEL MATHEMATICS program leads to dual certification in Elementary Education and Middle Level Education in Mathematics |

D. Signatures

* Changes that affect General Education in any way MUST be approved by ALL Deans and COGE Chair.
* Changes that directly impact more than one department/program MUST have the signatures of all relevant department chairs, program directors, and relevant dean (e.g. when creating/revising a program using courses from other departments/programs). Check UCC manual 4.2 for further guidelines on whether the signatures need to be approval or acknowledgement.
* Proposals that do not have appropriate approval signatures will not be considered.
* Type in name of person signing and their position/affiliation.
* Send electronic files of this proposal and accompanying catalog copy to curriculum@ric.edu and a printed or electronic signature copy of this form to the current Chair of UCC. Check UCC website for due dates.

##### D.1. Approvals: required from programs/departments/deans who originate the proposal. may include multiple departments, e.g., for joint/interdisciplinary prposals.

| Name | Position/affiliation | [Signature](#_Signature" \o "Insert electronic signature, if available, in this column) | Date |
| --- | --- | --- | --- |
| Carolyn Obel-Omia | Chair of Elementary Education |  |  |
| Julie Horwitz or Gerri August | Co-Deans of Feinstein School of Education and Human Development |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Michelle Brophy-Baermann | Chair, Political Science |  |  |
| Mark Motte | Director, Geography |  |  |

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| --- | --- | --- | --- |
| Earl Simson | Dean FAS |  |  |
| Sarah Knowlton | Chair Physical Science |  |  |
|  |  |  |  |

##### D.2. [Acknowledgements](#acknowledge): REQUIRED from OTHER PROGRAMS/DEPARTMENTS IMPACTED BY THE PROPOSAL. SIGNATURE DOES NOT INDICATE APPROVAL, ONLY AWARENESS THAT THE PROPOSAL IS BEING SUBMITTED. CONCERNS SHOULD BE BROUGHT TO THE UCC COMMITTEE MEETING FOR DISCUSSION

| Name | Position/affiliation | [Signature](#Signature_2) | Date |
| --- | --- | --- | --- |
| Stephanie Costa | Chair of Math Department |  |  |