

FORM A
Board of Regents, State of Iowa

**REQUEST TO IMPLEMENT A NEW BACCALAUREATE, MASTERS,
DOCTORAL, OR FIRST PROFESSIONAL DEGREE PROGRAM**
January 28, 2015

Editing color coding:

Yellow: Items to be completed by Provost Office

Gray: Items are draft text to use/edit as appropriate. Please remove highlighting of gray areas once edited.

THE PURPOSE OF ACADEMIC PROGRAM PLANNING: Planning a new academic degree program provides an opportunity for a Regent university to demonstrate need and demand as well as the university's ability to offer a quality program that is not unnecessarily duplicative of other similar programs offered by colleges and universities in Iowa.

Institution: _____ Iowa State University _____

CIP Discipline Specialty Title: _____

CIP Discipline Specialty Number (six digits): _____

NOTE: If department has recommendation – please feel free to enter – otherwise, provost office will fill these out

Level: B _____ M _____ X _____ D _____ FP _____

Title of Proposed Program: _____ Master of Arts in Teaching: Mathematics Education major _____

Degree Abbreviation (e.g., B.S., B.A., M.A., Ph.D.): _____ MAT _____

Approximate date to establish degree: _____ Month _____ Year _____

NOTE: If department has recommendation – please feel free to enter – otherwise, provost office will fill these out based on anticipated meeting date when Board would approve the program.

Contact person: (name, telephone, and e-mail). _____ Anne Foegen, 515-294-8373, afoegen@iastate.edu _____

College that will administer new program: _____ Human Sciences _____

Please provide the following information (use additional pages as needed). Do not use acronyms without defining them.

1. Describe the proposed new degree program, including the following:
 - a. A brief description of the program. If this is currently being offered as a track, provide justification for a standalone program.

The Mathematics Education major within the MAT degree will more effectively identify this program as a program leading to recommendation for initial teacher licensure. The program is designed to support individuals who hold a bachelor's degree in mathematics as they complete the additional requirements (including student teaching) needed to be recommended to the Iowa Board of Educational Examiners for licensure as a secondary (grades 5-12) mathematics teacher. ISU currently offers a Science Education major in the MAT. Students pursuing the MAT complete the professional core and methods courses, as well as required field experiences, over a 12-month period.

- b. A statement of academic objectives;
Students will complete the coursework and field experiences needed to be recommended for secondary teacher licensure in the state of Iowa.
- c. What the need for the program is and how the need for the program was determined;
This program is currently being offered as a graduate specialization (Secondary Mathematics Licensure) for a coursework only Master of Education under the Education major. The program is needed to meet the existing needs of the current program with a degree that is recognized in the field (the MAT) as representing an initial teacher preparation program at the graduate level.
- d. The relationship of the proposed new program to the institutional mission and how the program fits into the institution's and college's strategic plan;
The new MAT major in Secondary Mathematics supports Iowa State's mission to *Create, share and apply knowledge to make Iowa and the world a better place* by increasing the number of well-prepared teachers in secondary mathematics, a frequent shortage area in Iowa and in the nation. Ensuring that middle and high school students receive high quality instruction from a fully prepared teacher will support strong learning in mathematics. The strategic plans of both the university and the college have educational programs as their first goals. ISU's Goal 1 is *ensure that students receive an exceptional education*. The College of Human Sciences Priority 1 is *The Student Experience*, which includes a goal (1.2) to improve opportunities for—and access to—high impact learning experiences. The 12-month MAT major in Mathematics Education is high impact in its preparation of secondary mathematics teachers.
- e. The relationship of the proposed new program to other existing programs at the institution; describe how the proposed program will enhance other programs at the university. Will the proposed program duplicate existing programs at the university?
The Mathematics Education major for the MAT degree is not new program, but instead represents a revision of an existing program. The 12-month format provides an additional option for ISU students who wish to teach mathematics in middle or high schools. Students can complete the teaching requirements as part of their undergraduate Mathematics major, or they can opt to focus on mathematics in their undergraduate studies and “add on” an additional year to complete the educator preparation requirements and earn a master's degree. There is no duplication, as the option to complete the educator preparation requirements at the graduate level is currently possible through the M.Ed. in Education with the Secondary Mathematics Licensure specialization.
- f. The relationship of the proposed new program to existing programs at other colleges and universities in Iowa, including how the proposed program is different or has a different emphasis than the existing programs.
The proposed new program is a reconfiguration of an existing program. Despite the fact that several higher education institutions in Iowa offer programs for secondary mathematics education, state and national shortages of mathematics teachers persist.
- g. Special features or conditions that make the institution a desirable, unique, or appropriate place to initiate such a degree program.
It is appropriate that Iowa State University of Science and Technology would prepare secondary mathematics teachers as part of our land grant mission to meet the needs of the state of Iowa, the nation, and the world.
- h. Are the university's personnel, facilities, and equipment adequate to establish and maintain a high quality program?

Because this is a reconfiguration of an existing program, the existing ISU personnel, facilities and equipment are adequate to continue the current high-quality program.

- i. How does student demand for the proposed program justify its development?

Student demand for the program varies from year to year, in part because salaries for teaching are significantly lower than corporate or industry salaries for Mathematics majors. The coursework for the program overlaps with requirements for undergraduate Elementary Education majors pursuing an endorsement in Mathematics, as well as the undergraduate mathematics education requirements, so we are able to consistently offer needed coursework even when student numbers for the current M.Ed/proposed MAT are low.

- 2. Describe the state and/or national workforce need and/or demand for graduates of the proposed program currently and in the foreseeable future (provide documentation about the current sources of data used to estimate need and demand).

According to the U.S. Department of Education’s Teacher Shortage Areas website (<https://tsa.ed.gov/#/home/>), 46 states, including Iowa, have shortages of secondary mathematics teachers. The shortage of secondary mathematics teachers has been a longstanding situation, exacerbated in part by the disparity in salaries for individuals with mathematics degrees who opt to become teachers when compared to those who choose careers in business and industry.

- 3. List all other public and private institutions of higher education in Iowa currently operating programs similar to the proposed new degree program. (For comparison purposes, use a broad definitional framework, e.g., such identification should not be limited to programs with the same title, the same degree designation, having the same curriculum emphasis, or purporting to meet exactly the same needs as the proposed program.)

U of Iowa	MAT in Math Education
Drake	MAT, math endorsement
Simpson	MAT or Transition-to-Teach in math
Loras	Graduate non-degree licensure program

See response to 1f above.

If the same or similar program exists at another public or private institution of higher education in Iowa, respond to the following questions:

- a. Could the other institution reasonably accommodate the need for the new program through expansion? Describe collaboration efforts with other institutions.

N/A; this is not a new program. It is a reconfiguration of an existing program.

- b. With what representatives of these programs has there been consultation in developing the program proposal? Provide a summary of the response of each institution consulted.

We have consulted with our colleagues at the University of Iowa and the University of Northern Iowa; both are fully supportive of the addition of this major. Their letters are included in the appendix. In addition, we have discussed our plans with our colleagues in the departments offering post-baccalaureate secondary teacher endorsement. They are enthusiastic in their support, as noted in the letters in the appendix from the Departments of Agriculture Education, English, History, Human Development and Family Studies, and World Languages and Cultures. We have also been in consultation with Dr. Amy Slagell, Associate Dean in the College of Liberal Arts and Sciences, who has expressed her support. Please note that the letters address both the two proposed MAT majors and a companion proposal for a second major in

Education at the Undergraduate level; we've worked with our partners on all of these majors and they preferred to write a single letter addressing all three.

- c. Has the possibility of an inter-institutional program or other cooperative effort been explored? What are the results of this study? (Consider not only the possibility of a formally established inter-institutional program, but also how special resources at other institutions might be used on a cooperative basis in implementing the proposed program solely at the requesting institution.)

No, we have not explored this possibility because the current programs at each institution currently operate without cooperative efforts/

- d. Do other colleges in Iowa offer programs similar to the proposed program at comparable quality and cost?

- University of Iowa offers a 49 credit, 2 year (4 semester) MAT in mathematics education
- Drake University offers a 36-credit MAT with courses available evenings, weekends, and online. No specific timeline is reported in their website.
- Simpson College offers a 38-credit Transition to Teaching program for secondary mathematics; it requires two years to complete. A 42 credit MAT degree requires 42 credits; students complete these credits in the summer following the completion of the Transition to Teaching program.

- e. Are letters of support included with the program proposal?

Letters of support have been requested from the Deans of the appropriate colleges at the University of Iowa and the University of Northern Iowa. Additional support letters are in progress from within Iowa State University.

4. Estimate the number of majors and non-majors students that are projected to be enrolled in the program during the first seven years of the program.

- a. Undergraduate – None; this is a graduate program.

Undergraduate	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
Majors							
Non-Majors							

- b. Graduate

Graduate	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
Majors	3-4	3-4	3-4	3-4	3-4	3-4	3-4
Non-Majors	0	0	0	0	0	0	0

- c. What are the anticipated sources of these students?

Students in this program include both graduates of ISU's Mathematics major and students from other universities who are attracted to our 12-month educator preparation program.

5. If there are plans to offer the program away from the campus, briefly describe these plans, including potential sites and possible methods of delivery instruction. Will off-campus delivery require additional **HLC accreditation**?

This is an on-campus program.

6. Has the proposed program been reviewed and approved by the appropriate campus committees and authorities?

The program has been approved by the appropriate College and Faculty Senate Curriculum Committees, the Faculty Senate, the Provost and the President.

7. List date the program proposal was submitted to the Iowa Coordinating Council for Post High School Education (ICCPHSE) and results of listserv review.

Note: will be completed by the Provost Office.

8. Will the proposed program apply for programmatic accreditation? When?

The M.Ed. program leading to recommendation for licensure for program completers is currently approved by the Iowa Department of Education. Upon approval by the Board of Regents, we will update our materials with the state to reflect the new degree.

9. Will articulation agreements be developed for the proposed program? With whom?

No. This is a graduate program.

10. Will there be opportunities for student internships?

As part of our state-approved program, the students complete field experiences in each of their first two terms (summer and fall) and do a 16-week full time student teaching experience during their final (spring) semester.

11. Describe the faculty, facilities, and equipment that will be required for the proposed program.

See response to 1h above. Because this is a reconfiguration of an existing program, the School of Education faculty, facilities, and equipment supporting the current program will be sufficient for the Secondary Mathematics major for the MAT degree.

12. From where will the financial resources for the proposed program come (list all that apply, e.g., department reallocation, college reallocation, grants, new to the university)?

Iowa State University utilizes a decentralized financial management model for the development of its annual operating budgets. The Resource Management Model (RMM), is a responsibility-centered and incentive-driven approach to financial planning and management. The model supports departments and colleges in making budgetary decisions that enhance student success (e.g., retention), innovate by meeting market demands from students and employers for degree programs of the future, and discontinue legacy curricula which are either not aligned with industry/employer needs or for which student demand is low. Through the RMM, for graduate and professional students, net tuition revenue is allocated to academic colleges based on a student's enrollment. Tuition revenue will include both base tuition and applicable differential rates. The proposed degree program will be funded through this existing, proven financial model, and is expected to be fully self-sustaining over time. In addition to the budget model as described, financial resources may also come from internal reallocations made within the college during the program's startup phase. The level of reallocation will depend, in part, on the numbers of new students attracted to the proposed program, and the number of existing students who choose the proposed program over another program, based on standard and differential tuition rates. The proposed program will not be dependent on grants, contracts, gifts, central university resources, or reallocations between academic colleges.

13. Estimate the total costs/total new costs (incremental increases in expenditures) that will be necessary for the next seven years as a result of the new program. Be as specific as possible.
Because this is a reconfiguration of an existing program, there are no new costs. Current School of Education resources will continue to support the program.
14. Describe the marketing plan developed to communicate the new program and recruit students.
As a reconfiguration to an existing program, we will continue current marketing efforts, such as ensuring the program is included in the appropriate college and School recruiting materials, websites, and outreach programs.
15. Describe the program evaluation plan to determine if the program is meeting the intended objectives, if the expected student enrollment has occurred, funding for the program, and any other components that affect the effective operation of the program.
This program will be incorporated into the university's normal academic review process. That review process assesses whether the program is achieving its mission, providing high quality academic experiences, and fulfilling the enrollment and success metrics identified for the program. In addition to the academic program review, as a part of the college budgeting process the program will be monitored annually for achievement of enrollment goals.
16. Include any additional information that justifies the development of this program.

APPENDIX

Curriculum Overview

Letters of Support

University of Iowa

University of Northern Iowa

College of Liberal Arts and Sciences*

Department of Agricultural Education and Studies

Department of English

Department of History*

Department of Human Development and Family Studies

Department of World Languages and Cultures

*We are awaiting these letters. Please note that Dr. Amy Slagell, Associate Dean in the College of Liberal Arts and Sciences is currently out of the office managing a family emergency.

Master of Arts in Teaching – Curriculum Across Majors

MAJOR	Secondary Science *	Secondary Mathematics	Secondary Education
Total Credits	35	35	35
Professional Core – 18 credits			
Foundations of Education-3 cr.	EDUC 580	EDUC 580	EDUC 580
Educational Technology-3 cr.	EDUC 505	EDUC 505	EDUC 505
Exceptional Learners-3 cr.	SP ED 501	SP ED 501	SP ED 501
Social Justice Education-3 cr.	EDUC 506	EDUC 506	EDUC 506
Disciplinary Literacy- 3 cr.	EDUC 595	EDUC 595	EDUC 595
Educational Psychology/ Learning Sci-3 cr.	EDUC 541X	EDUC 541X	EDUC 529
Methods/Electives – 12 credits			
Content methods course 1	EDUC 518 - 3	EDUC 597	EDUC 526
Content methods course 2	EDUC 519 – 3	EDUC 508	Content Methods
Additional methods or elective 1	EDUC 547 - 3	EDUC 509	Methods/elective course
Additional methods or elective 2	NREM 380 - 3	EDUC 502 or 513	Methods/elective course
Field Experience – min. 5 credits			
Level 1	EDUC 541X (above)	EDUC 541X (above)	Graduate Equivalent OR 280L (0.5 cr.)
Level 3	EDUC 591_(0.5) (48 hour supervised placement EDUC 591_(0.5) (48 hour supervised placement	EDUC 591_(0.5) (48 hour supervised placement EDUC 591_(0.5) (48 hour supervised placement	EDUC 591_(0.5) (48 hour supervised placement EDUC 591_(0.5) (48 hour supervised placement
Student Teaching	EDUC 517_(4) (full semester placement) OR EDUC 517_(2) (half semester placement) EDUC 517_(2) (half semester placement)	EDUC 517_(4) (full semester placement) OR EDUC 517_(2) (half semester placement) EDUC 517_(2) (half semester placement)	EDUC 517_(4) (full semester placement) OR EDUC 517_(2) (half semester placement) EDUC 517_(2) (half semester placement)

*major has already been approved



College of Education

Office of the Dean

University of Iowa

N459 Lindquist Center

Iowa City, Iowa 52242-5129

319-335-6111

www.education.uiowa.edu

December 9, 2020

Dean Laura Jolly
E262 Lagomarcino Hall
Iowa State University
901 Stange Rd.
Ames, Iowa 50011

Dear Dean Jolly:

I am in support of the three new majors the Iowa State School of Education is proposing. As was the case for our double degrees, these new majors (one undergraduate and two graduate) ensure students are acknowledged for having completed teacher preparation coursework aligned with these proposed new majors through the School of Education. This documentation recognizes teaching as a profession while also acknowledging the importance of content expertise for those preparing to enter the teaching profession.

As you note in the proposal, the second undergraduate major would acknowledge the additional work being completed by your teacher candidates compared to students pursuing the content-area program but not educator preparation. The MAT in Mathematics Education major as proposed ensures Mathematics Education degree candidates' major more accurately reflects the work they are completing. The MAT in Secondary Education graduate major will provide candidates completing educator preparation the opportunity to receive a Master of Arts in Teaching degree for the work they have completed.

Thank you for the opportunity to review this proposal. We look forward to Iowa Board of Regents approval so that you can move forward with these majors – majors that recognize the completion of professional education requirements as well as disciplinary majors.

Sincerely,

Daniel L. Clay, Ph.D., MBA
Dean and Professor

**College of Education
Office of the Dean**

December 7, 2020

Dean Laura Dunn Jolly
College of Human Sciences
Iowa State University
E262 Lagomarcino Hall
901 Stange Rd.
Ames, Iowa 50011

Dear Dean Jolly:

Thank you for email inquiry requesting a letter of support for your proposal to offer three new majors – one undergraduate and two graduate – in educator preparation at Iowa State University.

We understand the need to revise current programming and that the proposals moving forward are not for a new programs, rather they are proposals to offer majors or change the major for existing programs. The undergraduate second major in education would acknowledge the additional work completed by your current secondary candidates compared to students pursuing the content-area program but not educator preparation.

Both MAT programs are not new programs, rather new pathways to a degree through an existing program: MAT in Mathematics Education (shifting the degree candidates receive to better reflect the work they are completing) and MAT in Secondary Education (for candidates already completing the educator preparation program to receive a degree).

We support you and your faculty in the development of these revised avenues for students at the undergraduate and graduate levels. Thank you for your continued commitment to the profession of teaching.

We wish you continued success in these endeavors.

Sincerely,

Colleen S. Mulholland [electronic signature]

Colleen S. Mulholland, Ed.D., NBCT
Dean, College of Education
University of Northern Iowa
150 Schindler Education Center
Cedar Falls, Iowa 50614 | 319.273.2717

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Department of Agricultural Education and Studies
513 Farm House Lane
201 Curtiss Hall
Ames, Iowa 50011-1050
Administration and Graduate Programs 515 294-5872
Undergraduate Programs 515 294-6924
Extension Programs 515 294-4076
FAX 515 294-0530

Date: 11/02/2020

To: Heidi Doellinger



From: Michael S. Retallick
Professor and Department Chair

Subject: SOE New Major Proposals Support Letter

The School of Education is proceeding with proposals for three new majors: 1) undergraduate secondary major in Education, 2) MAT in Mathematics Education (graduate major), and 3) MAT in Secondary Education (graduate major). These proposals have been shared with our department and reviewed by me as well as our teacher education committee which is led by Dr. Scott Smalley. You have adequately answered our questions and we have no issues with the proposals as presented. In short, we support these proposals as they continue through the approval process.

November 16, 2020

To Whom It May Concern:

As chair of the English department, I give my enthusiastic consent to the following teaching education proposals:

Second Major in Education: This proposal will enhance our English Education majors' credentials in allowing their transcript and diploma to show a major in English and a major in Education. This will help students applying for teaching jobs to assure school administrators that they do possess an academic background in teacher education and that they are qualified to apply for teacher licensure. This will also increase students' level of pride and accomplishment in recognizing the completion of their course work in two different areas.

MAT in Secondary Education: This proposal will greatly aid our students who already possess a bachelor's degree. Currently, these students take two years of courses and are then able to apply for their teacher license in English. However, they receive no degree or certificate for two years of courses, which includes student teaching. We currently have six students working on this Post-BA plan. Other students who live in the Ames-Des Moines area have inquired about the program, but devoting two years to course work and not receiving any degree is often not a viable option for them, so this proposed degree would be beneficial to those students. The MAT in Secondary Education will be rewarding to students to illustrate their academic coursework, as well as the application of that course work through practica and student teaching. Having the Master's degree will make them more marketable for teacher jobs and will indicate their level of commitment to two years of coursework.

MAT in Mathematics: While this proposed degree will not affect our English students, we also endorse it in the same way that we value the MAT in Secondary Education.

The English department is thankful for the background work of those initiating these three proposals, and we hope that these proposals receive approval and acclimation.

Sincerely,
Volker Hegelheimer
Chair, English Department

**IOWA STATE UNIVERSITY
Of Science and Technology**

**Human Development and Family Studies
College of Human Sciences
4380 Palmer**

November 24, 2020

To Whom It May Concern:

As Chair of the Human Development and Family Studies (HD FS) department, I am pleased to write a letter of support of the School of Education (SOE) proposal to establish three new majors: an undergraduate second major in secondary education, a mathematics education major within the Masters of Arts in Teaching (MAT) degree, and secondary education major within the Masters of Arts in Teaching (MAT) degree.

Our department offers two programs in educator preparation: Family and Consumer Sciences Education and Studies (FCEDS), and Early Childhood Education (ECE; which is co-administered by the School of Education). As a result, we work closely with the SOE on areas of overlapping interest. Our department also offers other majors that are not related to educator preparation or teacher licensure. In examining the proposals for these new majors, I do not see any areas where the majors would conflict with any of our undergraduate or graduate programs. In addition, I believe that these programs will be beneficial to participating students and our college as a whole.

Research has shown the importance of exemplary educator preparation programs to the training of highly qualified teachers. The School of Education already has excellent programs, and I see these additions as fitting well with the existing programs and goals for the school. We in HD FS are in strong support of efforts to improve the preparation of teachers who serve the state of Iowa.

If you have questions, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Weems', with a long horizontal line extending to the right.

Carl Weems
Professor and Chair

IOWA STATE UNIVERSITY

College of Liberal Arts & Sciences
World Languages & Cultures
3102 Pearson Hall
Ames, Iowa 50011-2205
Phone: 515 294-4046
FAX: 515 294-9914
www.language.iastate.edu/

November 3, 2020

Heidi Doellinger
Director of Educator Preparation
Iowa State University
1620D Lagomarcino Hall
901 Stange Road
Ames, Iowa 50011-1041

Dear Heidi,

On behalf of the Department of World Languages and Cultures, I write to lend my support for the School of Education's proposals for a Second Major in Education and the Graduate Major in Secondary Education.

We are excited that the proposals would provide WLC Education Candidates with important options to advance their interests in world language education, and we are enthusiastic to be included among the departments whose coursework is directly and positively impacted. These are the sorts of curricula that ISU have been lacking, and undergraduates, in particular, have commented to me over the years that they wished such options existed—particularly since they complete the equivalent of a second major in any case or because they often seek a graduate degree at ISU.

I am pleased to see the School of Education taking a leadership role on these new programs, and WLC happily supports the proposals.

Best Regards,



Chad M. Gasta
Professor and Chair
Director, International Studies