

New Program Code Replace Program Code Date: _____

REQUESTOR CONTACT INFORMATION

Name _____ Campus _____
 Title _____ Email _____
 Office/Dept _____ Phone _____

NEW PROGRAM CODE TO CREATE

Institution _____ Campus _____
 Level _____ Effective Term _____

	Code (Max. Characters)	Description	Check if requesting new code:
College	(2) _____	_____	<input type="checkbox"/> See Banner form STV_COLL
Department	(4) _____	_____	<input type="checkbox"/> See Banner form STV_DEPT
Degree/Certificate	(6) _____	_____	<input type="checkbox"/> See Banner form STV_DEGC
Major	(4) _____	_____	<input type="checkbox"/> See Banner form STV_MAJR
Concentration	(4) _____	_____	<input type="checkbox"/> See Banner form STV_MAJR
Minor	(4) _____	_____	<input type="checkbox"/> See Banner form STV_MAJR

If a similar major/concentration code exists in Banner, please list the code: _____

Justification to warrant a new major/concentration code similar to an existing major/concentration code:

Is this major/concentration code being used the same way at the other UH campuses? Yes No

Should this program be available for applicants to select as their planned course of study on the online application? *If yes, student may select the code as their only program of study.* Yes No

RULES PERTAINING TO FINANCIAL AID AND 150% DIRECT SUBSIDIZED LOAN LIMIT LEGISLATION

Is 50% or greater of the classes in this program offered at a location other than the Home Campus? Yes No

Is this program/major/certificate financial aid eligible? Yes No

Does this certificate qualify as a Gainful Employment Program (Title IV-eligible certificate program)?
 See <http://www.ifap.ed.gov/GainfulEmploymentInfo/index.html> Yes No

Program Length

In academic years; decimals are acceptable. The length of the program should match what is published by the campus in any online and/or written publication.

Special Program Designations A B N P T U

See Special Program Designations Code Definitions on IRAO Program Code Request webpage

Required Terms of Enrollment: Fall Spring Summer Extended

EXISTING PROGRAM CODE TO REPLACE, IF APPLICABLE

Program Code _____	Program Description _____
Institution _____	Campus _____
College _____	Department _____
Level _____	

Are current students "grandfathered" under the program code? Yes No

Should the old program code be available for use in Banner? Yes No

Effective **, old program code will no longer be available to admit or recruit students.**
Term (ie. Fall 2020)

This will turn off the online application, recruitment (effects Banner forms SRASUMI and SRAQUIK) and admissions (effects Banner forms SAADCRV, SAAADMS, SAASUMI, SAAQUIK, and SAAQUAN) Banner modules.

Effective **, old program code will no longer be available to award degree to students.**
Term (ie. Fall 2020)

This will turn off the general student (effects Banner form SGASTDN) and academic history (effects Banner form SHADEGR) Banner modules.

ATTACHMENTS

BOR Approved: Sole-credential Certificate, Associate, Bachelor and Graduate Degrees, and sole credential certificates

- BOR Meeting Minutes & Supporting Documents Curriculum

Chancellor Approved: Concentrations, Certificates and Associate in Technical Studies (ATS) Degree

- Memo from Chancellor to notify Vice President for Academic Planning and Policy regarding program action.
 Curriculum

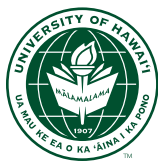
<p>CERTIFICATES ONLY: Please check one (1) statement. This certificate is a...</p> <p><input type="checkbox"/> BOR approved certificate. BOR Meeting/Approval Date: _____</p> <p><input type="checkbox"/> Chancellor approved within an authorized BOR program. BOR Program: _____</p> <p><input type="checkbox"/> Chancellor approved CO in accordance with UHCCP 5.203, Section IV.B.10.</p>

VERIFICATIONS

By signing below, I verify that I have reviewed and confirm the above information that is pertinent to my position.

<p>Registrar (Print Name)</p> <p>_____</p>	<p>Financial Aid Officer (Print Name)</p> <p>_____</p>	<p>For Community Colleges, verification of consultation with OVPCC Academic Affairs: Tammi Oyadomari-Chun</p> <p>_____</p>			
Signature	Date	Signature	Date	Signature	Date

ADDITIONAL COMMENTS




UNIVERSITY
of HAWAII®
MĀNOA

MEMORANDUM

December 3, 2021

TO: Laura E. Lyons
Interim Vice Provost for Academic Excellence

VIA: Julienne Maeda
Acting Dean, Graduate Division 

VIA: Nathan M. Murata 
Dean, College of Education

FROM: Patricia Halagao 
Chair, Curriculum Studies

SUBJECT: APPROVAL OF THE PROGRAMMATIC AND TRACK MODIFICATIONS IN
THE DEPARTMENT OF CURRICULUM STUDIES, COLLEGE OF
EDUCATION

SPECIFIC ACTION REQUESTED

It is requested that the Interim Vice Provost for Academic Excellence approve the program modification to add the following two tracks: *Mathematics Education K-12* and *Progressive Philosophy and Pedagogy* to the MEd in Curriculum Studies degree.

RECOMMENDED EFFECTIVE DATE

Fall 2022

ADDITIONAL COSTS

There will be no additional costs associated with this request.

RATIONALE/PURPOSE OF PROPOSED CHANGE(S)

The purpose of this request is to add two tracks that show specialized knowledge and required coursework in a particular area of study.

The MEd in Curriculum Studies (CS) is a 30-credit program composed of 4 core courses (12 credits) and six elective courses (18 credits) that culminates in a Plan A Thesis or Plan B project/portfolio. Its vision is to support curricular leaders who are committed to collaborating with their communities, particularly in Hawai'i and the Pacific, to build a more socially just, sustainable, and equitable society. Over the years, the Med-CS has evolved from primarily

focusing on concentrations in traditional subject areas (i.e. language arts, math, science, social studies) to adding programs with more interdisciplinary, place-based and thematic approaches to education (i.e. STEM, sustainability, Pacific education).

The MEd-CS allows flexibility for students to construct a course of study that draws on diverse course offerings, and currently offers two specialized tracks: Literacy Specialist and Interdisciplinary (See attached sheet on MEd CS Track Program sheets). The modification request is to add the following two tracks that formalize the course of study around a high need content area, mathematics education and the thematic focus around progressive education. These two tracks are in line with UHM 2015-2025 strategic plan's (p.7) mission to "*cultivate creative and innovative leaders who mālama our people, our places, and our ways of knowing in order to sustain and transform our islands and the world*" and current nationwide and state educational needs and trends, including initiatives within the Hawai'i Department of Education (HIDOE):

1) Mathematics Education K-12

The MEd-CS Mathematics Education is a 30-credit graduate program grounded in real-world problem-solving that empowers teachers as leaders to be locally-minded, global citizens through a sense of purpose and a sense of place. Students have the option of adding a field of licensure in Ethnomathematics to an existing Hawai'i Standard or Advanced License through the Hawai'i Teacher Standards Board. The focus area is ethnomathematics, but the MEd in Mathematics Education is broader in scope including theories, research methodologies, and pedagogies.

2) Progressive Philosophy and Pedagogy

The MEd-CS Progressive Philosophy and Pedagogy is a 30-credit graduate program in partnership with coursework from the Philosophy Department and Uehiro Academy for Philosophy and Ethics in Education (Please see the attached letter of support from the Philosophy Department Chair and Director of the UH Uehiro Academy) and is designed for educators and scholars from diverse disciplines and contexts, who are interested in building our collective capacity for creating a better future society for today's children. This program is grounded in Hawai'i's long and rich progressive education movement and is built upon the UHM College of Education's partnerships with a number of local public and private schools and organizations, who are bringing the theories and practices of early progressive educators into the twenty-first century. In addition to earning a Masters in Curriculum Studies, program completers will also earn a UHM College of Education Philosophy for Children Hawai'i Endorsed Certificate.

DETAILED LIST OF CHANGE(S):

This request is to formalize the two content areas of study as tracks, already being offered in the MEd – CS program. No other changes to the curriculum or degree are requested.

DETAILED LIST OF CONSULTATION WITH IMPACTED PROGRAMS:

There will be no negative effects on existing MEd-CS tracks. Students have been taking a set of coursework around mathematics education and progressive philosophy and pedagogy have been running. This request formalizes that two areas as “tracks” in the MEd-CS program.

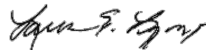
ACTION RECOMMENDED

It is recommended that the Interim Vice Provost for Academic Excellence approve the program modification to add the following two tracks: *Mathematics Education K-12* and *Progressive Philosophy and Pedagogy* to the MEd in Curriculum Studies degree.

ATTACHMENTS:

1. Current MEd-CS Program of Study and Track Program Sheets
2. EDCS Program of Study for Mathematics Education Track K-12
3. Letter of Support from Uehiro Academy and Philosophy Department
4. EDCS Program of Study for Progressive Philosophy and Pedagogy Track
5. Email consultation with MATH Department chair

APPROVED/DISAPPROVED



3/5/22

Laura E. Lyons
Interim Vice Provost for Academic Excellence

Date

Cc: Amelia Jenkins, Interim Associate Dean of Academic Affairs
Peter Arnade, Dean of CALL

**MEd Curriculum Studies
Program of Studies**

MEd in Curriculum Studies degree offers two basic plans: Plan A (Thesis Program) or Plan B (Paper, Project or Portfolio). Both require a minimum of 30 credit hours. Plan A, Thesis Program, is designed primarily for those students interested in research and writing a thesis. Plan B is for those who wish to strengthen their teaching and learn more about topics of interest. Plan B requires a culminating paper, project or portfolio.

REQUIREMENTS	MEd CS PLAN A	MEd CS PLAN B
Total Program Credits	30 credits = 400-700 level courses. <ul style="list-style-type: none"> • A minimum of 18 credits hours of courses at 600-level or higher (excluding 699, 700, and 799) • A minimum of 12 credit hours of EDCS courses, excluding 699 & 700. • For any 400-level and 600-level course <u>outside</u> of EDCS, advisor approval is required 	30 credits = 400-700 level courses. <ul style="list-style-type: none"> • A minimum of 18 credits hours of courses at 600-level or higher (excluding 699, 700, and 799) • A minimum of 12 credit hours of EDCS courses, excluding 699 & 700. • For any 400-level and 600-level course <u>outside</u> of EDCS, advisor approval is required
Required Core Courses	6 credits = Two Curriculum courses <ul style="list-style-type: none"> • EDCS 622 • EDCS 667 6 credits = Two Research courses <ol style="list-style-type: none"> 1. Choose one Overview Research Course (3 credits) from below: <ul style="list-style-type: none"> • EDCS 606 • EDEP 408 • EDEP 608 • EDEF 678 2. Choose one Research Methods Course (3 credits) from below: <ul style="list-style-type: none"> • EDCS 632 • EDEP 601 • EDEP 613/EDEA 604 	6 credits = Two Curriculum courses <ul style="list-style-type: none"> • EDCS 622 • EDCS 667 6 credits = Two Research courses <ol style="list-style-type: none"> 1. Choose one Overview Research Course (3 credits) from below: <ul style="list-style-type: none"> • EDCS 606 • EDEP 408 • EDEP 608 • EDEF 678 2. Choose one Research Methods Course (3 credits) from below: <ul style="list-style-type: none"> • EDCS 632 • EDEP 601 • EDEP 613/EDEA 604
Area of Study	12 credits Courses are selected in consultation with program advisor.	18 credits See track for more specific course requirements.

Research/thesis/ Plan B Credits	6 credits = EDCS 700 (Thesis Research) Coursework must be completed before registering for EDCS 700 in the semester of graduation.	18 credits in area of study may include up to 6 credit hours of EDCS 699 (Directed reading and/or research) or EDCS 695 (Plan B Master's project). Plan B option only for Interdisciplinary, Literacy Specialist, Progressive Philosophy & Pedagogy Tracks
Review Committee	Three person committee: Two from EDCS (one of whom is the chair), the third from another department (Graduate Faculty member)	Two person committee: Program Advisor from EDCS Graduate Faculty and a Second Reader at minimum with a Master's degree.
Thesis/ Proposal	Required	Not required
Proposal Defense	Required	Not required
Human Subjects Review	UH Human Subjects Committee approval for study	UH Human Subjects Committee approval for all studies that include human subjects
Culminating Requirement	Plan A Thesis	Plan B Paper, Project or Portfolio
Oral Defense	Required	Required
Program Residency	Minimum of 16 credit hours after acceptance into the program (Graduate Division requirement)	Minimum of 16 credit hours after acceptance into the program (Graduate Division requirement)

MEd Curriculum Studies Tracks

Interdisciplinary

MEd-CS Interdisciplinary is a minimum 30-credit track that allows for an in-depth area of study based on the candidate's choice or combined with other subjects resulting in a broader, more diverse focus. The interdisciplinary track will provide flexibility to adapt to the needs and interests of the students and make the best use of faculty expertise. Electives are chosen from a recommended course list, or may be selected in consultation with the program advisor.

12-core credits plus at least 18-credits selected in consultation with the program advisor.

Required Core Courses:

EDCS 606: Introduction to Research
EDCS 632: Qualitative Research Methods
EDCS 622G: Curriculum Leadership
EDCS 667G: Seminar in Curriculum Issues

Recommended Courses:

EDCS or Content Courses (400 or 600 level) selected by candidates and approved by advisors in Art, Literacy, Mathematics, Multicultural Education, Science, and/or Social studies, such as:

EDCS 608: Literacies across the Disciplines
EDCS 627: Teaching and Learning with Art Objects, Collections & Site Visits
EDCS 630: Cultural Diversity and Education
EDCS 640J: Seminar, Science
EDCS 640P: Seminar, Place-based Education
EDCS 653F: Mathematics in the Schools, Integrated Math Content

Culminating Requirements: Plan B Project

(Plan, teach, and evaluate an integrated unit grounded in theory and research; Research paper; Portfolio or Other, made up of assignments embedded in courses throughout the program).

For students needing additional time, EDCS 695 Plan B Masters Project (V): Independent study for students working on a Plan B master's project may be used.

Literacy Specialist, with Literacy Leader Graduate Certificate and Add-a-Field*

The MEd-CS Literacy Specialist is 30-credit online track and partnership between the Curriculum Studies and Special Education Departments that prepares literacy specialists to ensure all students achieve their maximum potentials as readers, writers, listeners, speakers, and practitioners of 21st Century literacies (e.g., digital, media, visual, critical) based on both International Literacy and Dyslexia Association Standards for Reading Professionals. The track may be used to add the field, *Literacy Specialist*, to a Hawai'i Standard or Advanced Teaching License.

12-core credits plus at least 18-credits chosen from the following list:

Required Core Courses:

EDCS 606: Introduction to Research (3)
EDCS 632: Qualitative Research Methods (3)
EDCS 622G: Curriculum Leadership (3)
EDCS 667G: Seminar in Curriculum Issues (3)

Required Courses:

EDCS 605: Literacy Coaching and Leadership (3)
EDCS 607: New Literacies Leadership (3)
EDCS 647: Classroom and School Literacy Assessment (3)
SPED 637: Fundamentals of Language & Literacy (3)
SPED 638: Advanced Fundamentals of Language & Literacy (3)
SPED 639: Topics and Issues in Reading Disabilities (3)

Culminating Requirements: Plan B Project

Content required for completion of these projects is integrated across all program course work.

To Add-a-Field:

*Applicants must have 3 years of teaching experience by program start date.

Track Coordinator: Dr. Amanda Smith, ars3@hawaii.edu

EDCS Program of Study for Mathematics Education Track K-12

The MEd-CS Mathematics Education is a 30-credit graduate program grounded in real-world problem-solving that empowers teachers as leaders to be locally-minded, global citizens through a sense of purpose and a sense of place. Students have the option of adding a field of licensure in Ethnomathematics to an existing Hawai'i Standard or Advanced License through the Hawai'i Teacher Standards Board. The focus area is ethnomathematics, but the MEd in Mathematics Education is broader in scope including theories, research methodologies, and pedagogies.

12-core credits plus at least 18-credits chosen from the following list, or other courses selected in consultation with the program advisor:

Required Core Courses:

- EDCS 622G: Curriculum Leadership (3)
- EDCS 606: Introduction to Research (3)
- EDCS 632: Qualitative Research Methods (3)
- EDCS 667G: Seminar in Curriculum Issues (3)

Required Specialization Courses:

- EDCS 624: School Mathematics Curriculum (3) AND
- EDCS 640H: Seminar in Mathematics (3) **Or**
- EDCS 640M: Seminar in Interdisciplinary Education (3)

Recommended Courses:

- EDCS 494: Problem Solving in Mathematics Education (3)
- EDCS 653 (Alpha)—alpha may be repeated (3)
 - B: Number and Operation
 - C: Pattern, Function and Algebra
 - D: Geometry and Measurement
 - E: Probability and Statistics
 - F: Integrated Mathematics Content
- EDCS 654 Ethnomathematics (3)

Other Recommended Courses for those Specializing on Middle/Secondary Levels:

- MATH 301: Introduction to Discrete Mathematics (3)
- MATH 302: Introduction to Differential Equations (I) (3)
- MATH 304: Mathematical Modeling: Deterministic Models (3)
- MATH 305: Mathematical Modeling: Probabilistic Models (3)
- MATH 311: Introduction to Linear Algebra (3)
- MATH 321: Introduction to Advanced Mathematics (3)
- MATH 331: Introduction to Real Analysis (3)
- MATH 351: Foundations of Euclidean Geometry (3)
- MATH 352: Non-Euclidean Geometries (3)
- MATH 372: Elementary Probability and Statistics (3)
- MATH 411: Linear Algebra (3)

MATH 412: Introduction to Abstract Algebra (I) (3)
MATH 413: Introduction to Abstract Algebra (II) (3)
MATH 420: Introduction to the Theory of Numbers (3)
MATH 421: Topology (3)
MATH 431: Principles of Analysis (I) (3)
MATH 455: Mathematical Logic (3)
MATH 471: Probability (3)
MATH 475: Combinatorial Mathematics (3)
PHIL 445: Symbolic Logic (3)

Culminating Requirements: Plan A Thesis or Plan B Project
For Plan A Thesis, 6 credit hours of EDCS 700 Thesis Research are required. For Plan B projects, content required for completion of these projects is integrated across all program course work.

EDCS Program of Study for Progressive Philosophy and Pedagogy Track

The MEd-CS Progressive Philosophy and Pedagogy is a 30-credit graduate program designed for educators and scholars from diverse disciplines and contexts, who are interested in building our collective capacity for creating a better future society for today's children. Unique to the University of Hawai'i at Mānoa (UHM), this program is grounded in Hawai'i's long and rich progressive education movement and is built upon the UHM College of Education's partnerships with a number of local schools and organizations, who are bringing the theories and practices of early progressive educators into the twenty-first century. In addition to earning a Masters in Curriculum Studies, program completers will also earn a UHM College of Education Philosophy for Children Hawai'i Endorsed Certificate.

12-core credits plus at least 18-credits chosen from the following list (subject to change), or other courses selected in consultation with the program advisor.

Required Core Courses:

- EDCS 622G: Curriculum Leadership (3)
- EDCS 606: Introduction to Research (3)
- EDCS 632: Qualitative Research Methods (3)
- EDCS 667G: Seminar in Curriculum Issues (3)

Required Specialization Courses:

- PHIL 492: Philosophy with Children (3)
- PHIL 493: Teaching Philosophy (3)
- EDCS 630: Cultural Diversity in Education (3)
- EDCS 640P: Seminar in Place-based Education (3)
- PHIL 725: Philosophical Topics- Philosophy, Childhood, and Education
- EDCS 695: Plan B Master's Project (3)

Culminating Requirement: Plan B Paper/ Project: Progressive Philosophy and Pedagogy Portfolio. Content required for completion of these projects is integrated across all program course work.

----- Forwarded message -----

From: **Patricia Halagao** <phalagao@hawaii.edu>

Date: Tue, Nov 23, 2021 at 3:26 PM

Subject: Re: Approval to list Math courses

To: Linda Furuto <lfuruto@hawaii.edu>

Cc: Rufus Willett <rufus@math.hawaii.edu>, Rufus Willett <rwillett@hawaii.edu>

Thank you Rufus for your approval to list all Math 300-400 level courses (other than 480) for our Masters in Curriculum Studies Math Education Track.

Aloha,
Patricia

On Tue, Nov 23, 2021 at 11:50 AM Linda Furuto <lfuruto@hawaii.edu> wrote:

Aloha Rufus,

Thank you very much for your email and wonderful suggestion. I would support listing all of your 300-400 level courses (other than 480, which is major restricted), as they may be useful for mathematics educators.

Best wishes,
Linda

On Tue, Nov 23, 2021 at 9:49 AM Rufus Willett <rufus@math.hawaii.edu> wrote:

Hello Linda, Patricia,

Thank you for the detailed explanations: that all sounds good.

From our end, we are happy for you to list the courses as they are (other than the small change with 351 / 352 / 353).

As a suggestion (no offense taken at all if you ignore it - we certainly do not intend to tell you how to run your programs), it might be simpler to just list all our 300-400 level courses (other than 480, which is major restricted): we would guess all of them are useful for mathematics educators, and this would avoid any issues with future changes to our courses. It also seems a little odd to us that the current list mainly omits our applied math courses (possibly under the philosophy that these are more useful for industry than for educators? - nonetheless, it might still be useful for educators to learn some of these subjects).

Thank you again,

Rufus

On 11/21/21 5:42 PM, Linda Furuto wrote:

Aloha Rufus,

Thank you very much for your email. Please see below for my responses in **green**. Please let me know if you have any questions.

Best wishes!

Mahalo,

Linda

On Sat, Nov 20, 2021 at 8:46 AM Patricia Halagao <phalagao@hawaii.edu> wrote:

Hi Rufus,

Thanks for getting back to us. I'm going to ask Linda to answer your questions below. I can only address a few.

Aloha,

Patricia

On Fri, Nov 19, 2021 at 6:08 AM Rufus Willett <rufus@math.hawaii.edu> wrote:

Dear Dr. Halagao (and Dr. Furuto),

Thank you for your message. I shared this with our Director of Undergraduate Studies (Mirjana Jovovic) and Associate Chair (Bjørn Kjos-Hanssen), who are in the cc.

Sorry for the hassle, but we were a bit confused about some points, and were hoping you could clarify. Could we ask the following:

- Is this going to be a track within the MEd in Curriculum Studies (or a different degree)? How many math courses will it require?

Yes, this is a track within our MEd in Curriculum Studies degree program. I will let Linda answer how many math courses it will require. For a list of courses in the MEd Curriculum Studies, Math Education, please see the link to the [MEd CS Handbook](#) and the direct link to a PDF version of [MEd CS Handbook 1 Prospective and New Students 2021-2022](#). The courses are listed on pp. 23-24. There are no required math courses, however, there are required math education courses.

- Do you have any idea how many students this might involve, and what the level of their math background might be?

Linda will have a better sense of this. Data from the past three years show we have an average of 5-8 students completing the MEd Curriculum Studies, Math Education per

year. For a list of admission requirements, please click on the accordion [Admission Requirements](#). A bachelor's degree in math or math education is not required; however, most of our students have bachelor's degrees in math, math education, science, and/or science education.

- Is there any reason for omitting some of our 300 and 400-level courses? The list seems to cover most of our 300 and 400 level courses, but not all of them, and we were a bit confused why some were omitted.

[Linda can answer this](#). These 300 and 400-level courses were already listed on the Math Ed program sheet prior to 2013 when I joined the COE so I am not sure who was involved in the selection of these courses. Over the past eight years (since 2013), none of our graduate students have taken math courses as part of the MEd Curriculum Studies, Math Education. We wanted to continue to keep the math courses listed in case future graduate students were interested in this option. However, if you prefer, I would be okay with removing the math courses as "Other Recommended Courses".

- On a purely technical level, Math 351 and 352 are no longer taught. They have been replaced by the single course 353 "Introduction to Euclidean and non-Euclidean geometries".

[We can eliminate 351 and 352 and replace it with 353](#). Thank you very much for letting us know.

Thank you very much,

Rufus

Rufus Willett
Professor and Chair
Mathematics, University of Hawai'i at Mānoa
Pronouns: he / him

On Nov 18, 2021, at 12:02 AM, Patricia Halagao <phalagao@hawaii.edu> wrote:

Dear Dr. Willett,

My name is Patricia Halagao and I am Chair of the Department of Curriculum Studies in the College of Education. Our Department recently submitted a proposal to Graduate Division to add a Mathematics Education track in our program. As part of this track, we have listed the following courses as "other recommended" electives for our in-service

teacher/graduate student if they want to further their professional development and understanding in math:

MATH 301: Introduction to Discrete Mathematics (3)
MATH 302: Introduction to Differential Equations (I) (3)
MATH 304: Mathematical Modeling: Deterministic Models (3)
MATH 305: Mathematical Modeling: Probabilistic Models (3)
MATH 311: Introduction to Linear Algebra (3)
MATH 321: Introduction to Advanced Mathematics (3)
MATH 331: Introduction to Real Analysis (3)
MATH 351: Foundations of Euclidean Geometry (3)
MATH 352: Non-Euclidean Geometries (3)
MATH 372: Elementary Probability and Statistics (3)
MATH 411: Linear Algebra (3)
MATH 412: Introduction to Abstract Algebra (I) (3)
MATH 413: Introduction to Abstract Algebra (II) (3)
MATH 420: Introduction to the Theory of Numbers (3)
MATH 421: Topology (3)
MATH 431: Principles of Analysis (I) (3)
MATH 455: Mathematical Logic (3)
MATH 471: Probability (3)
MATH 475: Combinatorial Mathematics (3)

When we met with Graduate council for their approval of our track, they encouraged us to consult with you as the Chair to verify we can list these courses as "other recommended" in our program sheet. When I spoke to our mathematics education faculty member, Dr. Linda Furuto mentioned these courses were already listed on the Math Ed program sheet prior to 2013 when she joined the COE, which leads me to believe that previous chairs had approved these courses to be listed. Nonetheless, I would like to request your permission to list these course on our Math Education track program sheet. If you are amenable, an email with a statement of your approval as Department chair will suffice.

Please let me know if you have further questions.

Aloha,
Patricia

--



Patricia Espiritu Halagao, PhD (she | her)
Professor & Chair, Department of Curriculum Studies
College of Education
University of Hawai'i, Mānoa
(808) 956-9295 | phalagao@hawaii.edu
CS Dept: <https://coe.hawaii.edu/cs/>
ZOOM Office: <https://coehawaii.zoom.us/my/patricia.halagao>