

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)? Yes No

See <http://www.ifap.ed.gov/GainfulEmploymentInfo/index.html>

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

IRAO USE ONLY: DATE RECEIVED

EXISTING PROGRAM CODE TO REPLACE

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 2014)

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 2014)

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

ADDITIONAL COMMENTS

ATTACHMENTS

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

- BOR Meeting Minutes & Supporting Documents OR Memo with President's Approval, with cc to Vice President for Academic Planning and Policy.
- Curriculum

Chancellor Approved: Certificates (eg. Certificate of Achievements, Certificates of Competence, Subject Certificates, Academic Subject Certificates) & Associate in Technical Studies (ATS) Degree

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

VERIFICATIONS

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

Registrar
(Print Name)

Financial Aid Officer
(Print Name)

For Community Colleges,
verification of consultation with
OVPCC Academic Affairs:

Tammi Oyadomari-Chun

Signature

Date

Signature

Date

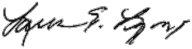
Signature

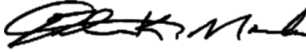
Date

DATE: October 26, 2023

TO: Michael Bruno
Provost

VIA: Debora Halbert (*see note below*)
Vice President, Academic Strategy

VIA: Laura Lyons 
Interim Vice Provost, Office of the Vice Provost for Academic Excellence

VIA: Julienne Maeda 
Interim Dean, Graduate Division

VIA: V. Vance Roley, First Hawaiian Bank Chair of Leadership and Management
Dean, Shidler College of Business

V. Vance
Roley

Digitally signed by V.
Vance Roley
Date: 2023.10.27
09:22:29 -10'00'

FROM: Hamid Pourjalali, Director
School of Accountancy, Shidler College
Hamid
Pourjalali

Digitally signed by Hamid
Pourjalali
Date: 2023.10.26
14:56:09 -10'00'

SUBJ: **STEM DESIGNATION FOR THE MAcc DEGREE PROGRAM**

SPECIFIC ACTION REQUESTED:

It is requested that the Provost approve the STEM Classification of Instructional Programs (CIP) code of **27.0305**-Financial Mathematics for the Master of Accountancy (MAcc) degree.

RECOMMENDED EFFECTIVE DATE Fall 2024

ADDITIONAL COST: NONE – There are no additional costs for STEM designation.

PURPOSE:

The MAcc program receiving a **27.0305** CIP code will (1) certify the MAcc degree as a STEM-qualified program (2) help increase the program's desirability to all of its students, (3) assist international students seeking an accounting-related career in business with a longer visa and

4) help Hawaii's employers meet the current shortage of highly trained accounting professionals in the state. A STEM designation will help make the Shidler MAcc program appear more state-of-the-art worldwide and competitive. A STEM designation will also improve opportunities for student placement and Shidler College's reputation.

BACKGROUND & JUSTIFICATION:

Accounting is a complex field closely aligned with STEM because it is a math-heavy discipline driven by complex concepts and technological advances because of the heavy reliance on information systems and needed expertise to protect clients' financial data. [See **Appendix A:** American Accounting Association's Resolution in Support of (STEM) Designation for Accounting Programs, July 2021]. Adding a STEM CIP to the MAcc would strengthen the program's marketability internationally and signify the program's updated emphasis on stronger skills with technology benefitting all MAcc students, most of whom contribute to Hawaii's professional workforce. The National Center for Education Statistics' **27.0305** CIP code (title: Financial Mathematics) is defined as:

"A program that focuses on the application of mathematics and statistics to the finance industry, including the development, critique, and use of various financial models. Includes instruction in probability theory, statistical analysis, numerical methods, computation and simulation methods, stochastic processes, economics, and financial markets and applications." <https://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=55&cipid=89376>

Accounting was derived from math and economics. Over the past decade, advances in technology have kept CPAs and accounting professionals needing additional education in artificial intelligence, robotics, data analytics, cybersecurity, blockchain, IT auditing and governance, and other technologies. For accountants to maintain their status as leading professionals and trusted business advisers, accountants must master many of these technology-specific hard skills along with complex accounting and tax knowledge and ever-relevant skills to communicate crucial insights to others. That is why UH-Manoa's MAcc program was redesigned in October 2023 and seeks STEM certification. (See **Appendix B:** SOA Minutes from October 8, 2023, adopting the goal of STEM coding for the MAcc). The courses comprising the MAcc are provided in **Appendix C:** MAcc curriculum, as adjusted on October 11, 2023. Catalog descriptions of these courses are provided in **Appendix D:** Course Catalog Descriptions of MAcc Courses for STEM

Accounting builds upon mathematical modeling, time value of money, spreadsheet analysis (Excel), data analytics and data visualization (Tableau), auditing software (IDEA), accounting information systems, database design and querying (MySQL), Visual Basic for Applications- Excel (VBA), and Extract Transform and Load (ETL) processing. According to Susan Coffey, CPA, CGMA, CEO of Public Accounting at the AICPA, "The CPA Exam has evolved to align with a digital-driven marketplace, and that means a greater emphasis on technology and analytical skills..." The MAcc not only teaches the core skills of accounting, auditing, and tax but also develops within its students significant technological abilities, abilities that the accounting profession and its recruiters continue to expect.

SOA's website explains, "The Master of Accounting (MAcc) program is a 30 credit hour program which provides an advanced education in taxation, financial accounting, and auditing program which provides an advanced education in taxation, financial accounting, and auditing necessary for students to pursue leading positions in public practice, business, government, and related fields. The MAcc is designed to provide the skills necessary to build a successful career in the multifaceted, dynamic practice of accounting. Completion of the MAcc fulfills the 150 credit hour requirement for becoming a CPA." Pre-requisite accounting education for the MAcc is provided in Appendix E: Pre-MAcc Curriculum and the CPA Minor.

The MAcc core and elective concentration courses meet the description of the proposed **27.0305** CIP code because the MAcc degree curriculum surpasses the 50 percent threshold of STEM-related courses for the degree. The requested CIP code aligns with the educational and research mission and complements other graduate CIP programs offered at Shidler and elsewhere within UH-Manoa. This request is aligned with national trends and practices of recognizing graduate accounting programs.

Having added more technological skills-focused classes, UH-Manoa's MAcc now looks similar to other approved MAcc programs for STEM coding (see [Appendix F](#): List of Universities with MAcc programs adopting STEM certification). The faculty analyzed the MAcc program at other leading US institutions to compare to the UH-Manoa MAcc. See [Appendix G](#): Comparing Curriculum between Selected MAcc programs and Shidler's MAcc) to further ensure that the Curriculum deserves CIP code **27.0305** for STEM certification.

SPECIFIC ACTION RECOMMENDED:

It is recommended that the Provost approve the STEM Classification of Instructional Program (CIP) code of **27.0305**-Financial Mathematics for the Master of Accountancy (MAcc) degree.

List of Appendices:

Appendix A: American Accounting Association's **Resolution in Support of (STEM) Designation for Accounting Programs, July 2021**

Appendix B: SOA Minutes from October 8, 2023, adopting the goal of STEM coding for the MAcc

Appendix C: MAcc Curriculum, as revised on October 11, 2023

Appendix D: Course Catalogue Descriptions of MAcc Courses for STEM

Appendix E: Pre-MAcc Curriculum and CPA Minor

Appendix F: List of Universities with MAcc programs adopting STEM certification
Appendix G: Comparing Curriculum between selected MAcc programs and Shidler's MAcc

APPROVED DISAPPROVED

Michael Bruno

11/28/2023

Michael Bruno,
Provost

Date

11/21/23 VPAS Debora Halbert has reviewed and concurs with this request.

Appendix A

American Accounting Association's Resolution in Support of (STEM) Designation for Accounting Programs, July 2021



**American
Accounting
Association**

**Thought Leaders in
Accounting**

Resolution in Support of Science, Technology, Engineering and Math (STEM) Designation for Accounting Programs July 2021

Whereas: Our Mission includes expanding knowledge and idea development and promoting effective and efficient learning

Whereas: Our Mission includes informing and influencing policy and practice

Whereas: STEM designation includes the fields of science, technology, engineering, and mathematics

Whereas: Federal policymakers have an active and enduring interest in STEM education and the topic is frequently raised in federal science, education, workforce, national security, and immigration policy debates¹

Whereas: Technology and mathematics are integral to accounting

Whereas: The potential benefits of a STEM designation are key issues for accounting scholarship, education, and practice

Whereas: STEM designation of accounting educational programs and institutions increases the attractiveness of accounting as a profession to diverse populations of students in primary and secondary education

Whereas: STEM designations are reflected in Classification of Instruction Program (CIP) codes promulgated by the Department of Education and utilized by the Department of Homeland Security for immigration purposes

Whereas: Accounting programs such as Accounting and Finance (CIP 53.0304), Accounting and Business Management (CIP 53.0305), Accounting and Computer Science (CIP 30.16), Auditing (CIP 52.0303), and Taxation (CIP 52.1601) are not currently designated as STEM programs²

Be it resolved that: The American Accounting Association actively supports including accounting programs within STEM designations in middle and secondary education programs for all purposes.

Be it resolved that: The American Accounting Association actively supports including undergraduate, graduate, and postgraduate university accounting programs within STEM classification.

¹ Science, Technology, Engineering, and Mathematics (STEM) Education: A Primer by Heather B. Gonzalez Specialist in Science and Technology Policy and Jeffrey J. Kuenzi, Specialist in Education Policy, Congressional Research Service <https://fas.org/sgp/crs/misc/R42642.pdf>

² CIP codes are determined by the U.S. Department of Education's National Center for Education Statistics <https://nces.ed.gov>

Appendix B
SOA Minutes from Oct. 8,2023 Adopting Goal of STEM Coding for the MAcc

Minutes of School of Accountancy, Shidler College
Faculty Meeting
October 11, 2023
8:30 am to 9:00 am
Via Zoom

Attendees: Boochun Jung, Liming Guan, Jee Hae Lim, You-il (Chris) Park, Thomas (Tom) Pearson, Hamid Pourjalali, Abhishek (Abhi) Ramchandani, Kristine Santaniello, Jenny Teruya, Il Sun Yoo, Jian Zhou, and Adjunct Faculty: Rachel Antal, Myron Mitsuyasu, and Gary Nishikawa

Excused: Manu Kaiama, Mary Woollen, David Yang, and all Adjunct Faculty:

The meeting was called to discuss proposed changes to get Science, Technology, Engineering and Math (STEM) Designation for the MAcc Program and the required MAcc core courses.

Three resolutions were considered, each unanimously passed in the voting:

Approval of the motion that SOA seeks STEM coding for its MAcc.

Add to the required MAcc core:

1. ACC 619 Information and Assurance and Analytics and ITM 683 Business Intelligence and Data Analytics.
2. Remove ACC 407 and ACC 415 from the MAcc core, but keep them as electives.

Appendix C
MAcc Curriculum, as adjusted on October 11, 2023

The MAcc degree requires 30 credit hours of coursework:

Required Core MAcc courses (17 credits):

- **ACC 465 Accounting Capstone (2) (replaces Acc 460 starting fall 2024)**
- **ACC 616 Accounting Theory and Development (3)**
- **ACC 619 Information and Assurance and Analytics (3)**
- **ACC 625 Accounting and Tax Research (3)**
- **ACC 648 Financial Statements Analysis (1)**
- **ACC 660 Analysis and Decision-Making (2)**
- ITM 683 Business Intelligence and Data Analytics (3)

Electives (13 credits)

- **ACC 407 Taxation of Business Entities (3)**
- **ACC 415 Advanced Financial Accounting (3)**
- **ACC 610 International Corporate Governance (3)**
- **ACC 620 Global Accounting (3)**
- **ACC 631 Tax of Partners/Partnerships (2)**
- **ACC 635 Advanced Public Sector Accounting (3)**
- **ACC 638 Estate and Gift Taxation and Planning (2)**
- **ACC 639 Multijurisdictional Taxation (2)**

Additional electives can come from either concentration or the following:

- ACC 690 or 695 (Internship - often very helpful)
- 400 to 600-level courses from the Shidler College of Business or selected courses in PACE, LAW, COM, or COMG (business courses may not include MBA core classes.)

Appendix D
Course Catalogue Descriptions of Core MAcc Courses for STEM

ACC 465 Accounting Capstone (2)

Integration of numerous elements of the accounting program. Relevant topics of managerial, Tax, and Ethics , Financial, Auditing, and Accounting Information Systems. Current accounting issues discussed. Lecturers, discussions, case analysis.

ACC 616 Accounting Theory and Development (3)

History and theoretical background of accounting standards. Including accounting theories, formulating and testing theories; scientific, pragmatic, syntactic and semantic theories; normative and positive theories. Literature supportive and critical of accounting theories and standards.

ACC 619 Information and Assurance and Analytics (3)

Focus on auditing processes, standards, and guidance specific to IT risks. Exposure to advanced IT audit software and its practical application and real world IT audit issues.

ACC 625 Accounting and Tax Research (3)

In depth examination of tax and accounting research, IRC, and SEC procedures. Extensive practice in issue identification, reading and analyzing primary authority, and communicating results.

ACC 648 Financial Statements Analysis (1)

Analyses of a firm's profitability, liquidity, and solvency using ratios and common size financial statements. Students are expected to find strengths and weaknesses of the firm based on their analysis.

ACC 660 Analysis and Decision-Making (2)

Integrates learning through analysis and communication of comprehensive business problems. Stresses research, critical thinking, and analytical and communication skills applied to contemporary accounting and tax issues.

ITM 683 Business Intelligence and Data Analytics

business intelligence and data analytics at operational, tactical, and strategic levels using basic data science techniques, including visual, descriptive, diagnostic, predictive, and prescriptive analytics methods and hands-on learning using current software tools.

ACCOUNTING ELECTIVES

ACC 407 Taxation of Business Entities (3)

A survey of the general concepts, rules, and practices involved in the taxation of sole-proprietorships, corporations, partnerships, and subchapter S corporations.

ACC 413 Law for the Accountant (3)

Intensive study of areas of law of importance to accountants. Particular attention is given to principles of law relating to contracts, sales, commercial paper, secured transactions, property, legal entities, agency, securities, and accountant's legal liability.

ACC 415 Advanced Financial Accounting (3)

Accounting topics relating to consolidation requirements and introduction to the fundamentals of fund accounting, including the general fund, restricted funds, debt service funds, enterprise funds, general long-term account group, general fixed assets accounting group, and accounting entries for encumbrances.

ACC 610 International Corporate Governance (3)

Understanding of complex and critical issues of international corporate governance, financial reporting, and ethical conduct. Includes corporate governance in the U.S., major European markets, and Asia. Emphasis on internal and external stakeholders, regulators, and gatekeepers.

ACC 620 Global Accounting (3)

Theory and fundamental causes of international variations in accounting. Special emphasis on problems such variations create for financial reporting, control, and decision-making within multinational business enterprises.

ACC 631 Tax of Partners/Partnerships (2)

Examines advanced topics in federal taxation of partners and partnerships regarding the contribution, operation, and distribution from partnerships and transfers of partnership interests.

ACC 635 Advanced Public Sector Accounting (3)

Provides the tools necessary for understanding the principles of fiscal accountability and reporting in governmental and not-for-profit organizations.

ACC 638 Estate and Gift Taxation and Planning (2)

Examines estate and gift tax provisions and basic estate planning techniques to save taxes and avoid probate. Overviews generation-skipping transfer taxes and income taxes on estates and trusts.

ACC 639 Multijurisdictional Taxation (2)

Examines international, state, and local tax issues. Topics include U.S. International taxation of in- and out-bound transactions, sourcing of income and deductions and nexus.

ACC 690 Current Topics in Accounting (V)

Concentration on current issues impacting the accounting profession. Topics vary each semester. Repeatable two times, up to nine credits.

ACC 695 Accounting Internship (V)

On-the-job experience in the accounting community. Necessary evaluation reports and meetings with faculty advisor required.

APPENDIX E
Pre-MAcc and CPA Minor Curriculum

Pre-requisite Foundational Courses for students who do not hold an undergraduate degree in accounting must complete the following courses while enrolled in the MAcc program:

- [ACC 321 - Intermediate Financial Accounting I](#)
- [ACC 323 - Intermediate Financial Accounting II](#)
- [ACC 401 - Individual Federal Income Taxation](#)
- [ACC 409 - Accounting Information Systems](#)
- [ACC 418 - Auditing](#)

UH-Manoa's undergraduate accounting major is shorter than most universities (only 19 credit hours) but more consistent with the length of majors within Shidler.

[CPA Minor \(shorter alternative to the MAcc for CPA preparation\)](#)

UH-Manoa also offers a [CPA Minor](#) to help signal to undergraduate accounting majors essential additional coursework to become a CPA.

Students must complete the following to receive a minor with at least 15 credits:

ACC 407 Taxation of Business Entities (3)
ACC 413 Law for the Accountant (3)
ACC 415 Advanced Financial Accounting (3)

and at least 6 credits (with a grading option of A-F) from: ACC 399, 416; CINE/ACM 484; BUS 410; FIN 307, 450, 490D; ECON 300, 301, 340; TPSS 429.

Students who have completed the minor cannot apply courses taken in their minor toward another degree (or minor) and cannot pursue the 3/2 MAcc program.

Appendix E
List of 24 Major Universities with MAcc programs
adopting STEM certification

1. American University, Kogod School of Business
[MS in Accounting curriculum](#)
2. Boston College, Carroll School of Management
<https://www.bc.edu/bc-web/schools/carroll-school/graduate/ms-programs/ms-in-accounting.html>
3. Brigham Young University, BYU Marriott School of Business
<https://marriott.byu.edu/acc/macc/stems/>
4. Colorado State University, College of Business
<https://biz.colostate.edu/academics/graduate-programs/master-of-accountancy>
5. Cornell University, Cornell SC Johnson College of Business
<https://www.johnson.cornell.edu/programs/mps-in-management-accounting-specialization/curriculum/>
6. Fordham University, Gabelli School of Business
[Accounting Concentration with STEM Track](#)
7. Michigan State University, Broad College of Business
<https://broad.msu.edu/masters/accounting/curriculum/>
8. NC State University, Poole College of Management
<https://mac.ncsu.edu/academics/core-curriculum/>
9. Ohio State University, Fisher College of Business
<https://fisher.osu.edu/graduate/macc/academics/curriculum>
10. Rice University, Jones Graduate School of Business
<https://business.rice.edu/our-programs/master-accounting/curriculum>
11. St. John's University, The Peter J. Tobin College of Business
<https://www.stjohns.edu/academics/programs/accounting-master-science>
12. Seattle University, Albers School of Business and Economics
<https://www.seattleu.edu/business/masters-accounting/masters-accounting-analytics/>
13. Syracuse University, Whitman School of Management
<https://whitman.syracuse.edu/graduate-programs/masters-in-professional-accounting/professional-accounting-curriculum>
14. Tulane University, Freeman School of Business
<https://catalog.tulane.edu/business/accounting/accounting-mac/#requirementstext>

15. University of Houston, C. T. Bauer College of Business
<https://www.bauer.uh.edu/ms-accountancy/curriculum/>
16. University of Miami, Miami Herbert Business School,
[Master of Science in Accountancy-curriculum](#)
17. University of Michigan, Stephen M. Ross School of Business
<https://michiganross.umich.edu/graduate/master-of-accounting/curriculum>
18. [University of Mississippi, Patterson School of Accountancy](#)
<https://accountancy.olemiss.edu/mada/>
19. University of Northern Iowa, College of Business
<https://business.uni.edu/graduate-programs/master-accounting/curriculum>
20. University of California San Diego, Rady School of Management
<https://rady.ucsd.edu/programs/master-professional-accountancy/academics/core.html>
21. University of Illinois, Gies College of Business
<https://giesbusiness.illinois.edu/msa/curriculum>
22. University of Pittsburgh, Joseph M. Katz Graduate School of Business
[MS of Accounting / Courses](#)
23. University of Vermont, Grossman School of Business
https://www.uvm.edu/business/macc_curriculum
24. Washington University in St. Louis, Olin Business School
[Master of Accounting Curriculum](#)

Appendix F
Comparing Curriculum between
Selected MAcc programs and Shidler's MAcc

Shidler's MAcc offers courses combining math and technology in its common core curriculum, which is similar to the extra technology content at Top Ranked Accounting MAcc Programs with STEM coding having such courses as System and Analytics in Accounting, Business Analysis for Accountants, Accounting Information Systems, and Enterprise Technology Integration, and Applied Financial Management.

Top Ranked Accounting MAcc Programs with STEM coding include:

University of Illinois
University of Michigan
BYU
Michigan State
NC State
Ohio State