## **468: MS IN MULTIDISCIPLINARY STUDIES**

## In Workflow

- a. SACSCOC Accreditation Liaison (lorrie.smith@utsa.edu; KASEY.NEECE-FIELDER@UTSA.EDU; debbie.howard@utsa.edu)
- b. UC Graduate Curriculum Committee Chair (Elena.Camargo@utsa.edu)
- c. UC Associate Dean of Graduate Studies (JIANWEI.NIU@UTSA.EDU)
- d. UC Financial Lead (PATRICIA.RAMIREZ2@UTSA.EDU)
- e. UC Dean (HEATHER.SHIPLEY@UTSA.EDU)
- f. GR Vice Provost (rebecca.weston@utsa.edu; ambika.mathur@utsa.edu)
- g. GR Vice Provost (rebecca.weston@utsa.edu; ambika.mathur@utsa.edu)
- h. Ginger Hernandez (ginger.hernandez@utsa.edu)
- i. Graduate Council Chair (corey.sparks@utsa.edu)
- j. Faculty Senate Chair (rene.zenteno@utsa.edu)
- k. Suzana Diaz Rosencrans (Suzana.diaz.rosencrans@utsa.edu)
- I. Academic Affairs (vpaa.fms@utsa.edu;angela.griffith@utsa.edu;catarina.rodriguez@utsa.edu; chelsea.vietri@utsa.edu)
- m. SACSCOC Accreditation Liaison (lorrie.smith@utsa.edu; KASEY.NEECE-FIELDER@UTSA.EDU; debbie.howard@utsa.edu)
- n. GR Vice Provost (rebecca.weston@utsa.edu; ambika.mathur@utsa.edu)
- o. Catalog Editor (CatalogEditor@utsa.edu)

## **Approval Path**

a. Thu, 28 Apr 2022 16:44:37 GMT

Debbie Rappaport (fjs556): Approved for SACSCOC Accreditation Liaison

b. Thu, 28 Apr 2022 18:20:34 GMT

Debbie Rappaport (fjs556): Approved for UC Graduate Curriculum Committee Chair

c. Thu, 28 Apr 2022 18:31:43 GMT

Jianwei Niu (dxk432): Approved for UC Associate Dean of Graduate Studies

d. Thu, 28 Apr 2022 20:11:14 GMT

Patti Ramirez (gvx601): Approved for UC Financial Lead

e. Thu, 28 Apr 2022 22:03:45 GMT

Heather Shipley (isg537): Approved for UC Dean

f. Mon, 02 May 2022 23:23:37 GMT

Ginger Hernandez (khw579): Approved for GR Vice Provost

g. Wed, 04 May 2022 23:29:36 GMT

Debbie Rappaport (fjs556): Approved for Academic Council Agenda Item Review

h. Wed, 04 May 2022 23:46:55 GMT

Ambika Mathur (ujl745): Approved for GR Academic Council Approval

i. Thu, 05 May 2022 18:37:14 GMT

Catarina Rodriguez (nbs529): Approved for Academic Affairs

j. Thu, 05 May 2022 20:13:05 GMT

Debbie Rappaport (fjs556): Approved for SACSCOC Accreditation Liaison

k. Sun, 22 May 2022 21:28:53 GMT

Jianwei Niu (dxk432): Approved for UC Associate Dean of Graduate Studies

I. Mon, 23 May 2022 12:28:55 GMT

Patti Ramirez (gvx601): Approved for UC Financial Lead

m. Mon, 23 May 2022 16:51:13 GMT

Ambika Mathur (ujl745): Approved for GR Vice Provost

n. Mon, 23 May 2022 19:11:35 GMT

Jurgen Engelberth (vyt830): Approved for Graduate Council Chair

o. Mon, 23 May 2022 19:12:19 GMT

Chad Mahood (zqa464): Approved for Faculty Senate Chair

p. Fri, 27 May 2022 18:02:34 GMT

Debbie Rappaport (fjs556): Rollback to UC Associate Dean of Graduate Studies for Academic Affairs

q. Tue, 31 May 2022 19:32:08 GMT

Jianwei Niu (dxk432): Approved for UC Associate Dean of Graduate Studies

r. Tue, 31 May 2022 23:36:16 GMT

Patti Ramirez (gvx601): Approved for UC Financial Lead

s. Wed, 01 Jun 2022 00:18:59 GMT

Ambika Mathur (ujl745): Approved for GR Vice Provost

t. Thu, 03 Nov 2022 14:58:11 GMT

Corey Sparks (ozd504): Approved for Graduate Council Chair

u. Thu, 03 Nov 2022 18:27:36 GMT

Debbie Rappaport (fjs556): Rollback to Graduate Council Chair for Faculty Senate Chair

v. Wed, 07 Dec 2022 16:29:46 GMT

Debbie Rappaport (fjs556): Rollback to GR Vice Provost for Graduate Council Chair

w. Wed, 07 Dec 2022 18:37:14 GMT

Ambika Mathur (ujl745): Rollback to GR Vice Provost for GR Vice Provost

x. Thu, 08 Dec 2022 20:29:01 GMT

Debbie Rappaport (fjs556): Approved for GR Vice Provost

y. Thu, 08 Dec 2022 22:18:42 GMT

Rebecca Weston (dci515): Approved for GR Vice Provost

z. Fri, 16 Dec 2022 17:53:45 GMT

Ginger Hernandez (khw579): Approved for khw579

aa. Fri, 16 Dec 2022 19:00:13 GMT

Corey Sparks (ozd504): Approved for Graduate Council Chair

bb. Sat, 17 Dec 2022 17:38:44 GMT

Rene Zenteno (ezs921): Approved for Faculty Senate Chair

## **New Program Proposal**

Date Submitted: Thu, 28 Apr 2022 16:17:04 GMT Viewing: 468 : MS in Multidisciplinary Studies

Last edit: Fri, 06 Jan 2023 22:47:05 GMT

Changes proposed by: Jianwei Niu (dxk432)

## **Administrative Information**

#### **Submitter Information**

#### Name

MS in Multidisciplinary Studies

#### Fmail

jianwei.niu@utsa.edu

#### **Title**

Associate Dean

### Department

**NOT APPLICABLE** 

Select Not Applicable for Department if this is a College Level Program. Then select the appropriate college.

#### College

**University College** 

## **Effective Catalog Edition**

2023-2024

## Is this an academic agreement with another entity outside UTSA?

No

## **New Program Proposal**

#### **Program Name**

MS in Multidisciplinary Studies

## **Desired Implementation Date**

Fall 2023

### **Program Type**

Master's Degree

## **Program Level**

Graduate

#### **CIP Code**

30.0000.00 - 30.0000.00

#### **Method of Delivery**

Face-to-Face (51-100% in person)
Hybrid/Blended (51-85% online)
100% Online (no face-to-face on campus instruction required)

## **New Program Development Questions**

## Mission: Describe how the credential/degree aligns with the institutional mission or institutional strategic plan.

The proposed Master of Science (MS) in Multidisciplinary Studies (MDS) is a new graduate program which prepares students with a diverse academic background, including science, technology, engineering, mathematics, health, and social science to combine their knowledge into one career, including consulting, system engineering, information system management, and data analyst. For instance, there is an industry and societal need for more professionals who are prepared to take on the data science challenges we are currently facing. The rapid development of data analysis tools has made it possible to include data science technology into many domains. A student could take the Data Science certificate to develop data science skills and choose another certificate to gain knowledge of an application domain. The purpose of this program is designed to prepare graduate students across multiple disciplines with fundamental science, health, and engineering knowledge and skills for the workforce. It will also serve to help the institution respond in a nimble and innovative nature to scale cross-disciplinary master programs. According to data collected by the U.S. Census Bureau and American Community Survey, the median annual wage for full-time workers ages 25 and over whose highest level of education was a master's degree was \$68,000, compared with \$56,000 for those whose highest level was a bachelor's degree. This correlates to a \$12,000 a year wage premium for those how have a master's degree. The National Association of Colleges and Employers (NACE) recently looked at the 2020 starting salaries for master's and bachelor's degrees (See Table 1 in Appendix). They found that starting salaries for graduates with master's degrees, for most majors, were considerably higher than their bachelor counterparts.

# Demonstrated need: Provide evidence of the job market and workforce need for the proposed credential/degree (include Lightcast and other workforce related data). Consider the impact of the program title on recruitment (SEO/SEM).

The proposed Master of Science (M.S.) in Multidisciplinary Studies (MDS) is a new graduate program which prepares students with a diverse academic background, including science, technology, engineering, mathematics, health, and social science to combine their knowledge into one career, including consulting, system engineering, information system management, and data analyst. For instance, there is an industry and societal need for more professionals who are prepared to take on the data science challenges we are currently facing. The rapid development of data analysis tools has made it possible to include data science technology into many domains. A student could take the Data Science certificate to develop data science skills and choose another certificate to gain knowledge of an application domain. The purpose of this professional degree program is designed to prepare graduate students across multiple disciplines with fundamental science, health, and engineering knowledge and skills for the workforce.

This new proposed stackable program allows students to design a degree plan that builds on personal interests, academic strengths, and career opportunities. The degree plan pairs graduate certificates in two academic disciplines that enrich the students' marketable skills.

#### Example 1:

Graduate Certificate in Data Science: This certificate enhances students' employment credentials as college and university STEM instructors in data science related areas, or data analysts in corporate, nonprofit, and educational settings. (15 semester credit hours)

Graduate Certificate in I-STEM Education: The goals of the Graduate Certificate in I-STEM Education are to provide graduate students with a comprehensive educational foundation to understand local and global STEM issues and support them to acquire the analytic skills needed to effectively implement appropriate instructional strategies for varying audiences. (12 semester credit hours)

According to data collected by the U.S. Census Bureau and American Community Survey, the median annual wage for full-time workers ages 25 and over whose highest level of education was a master's degree was \$68,000, compared with \$56,000 for those whose highest level was a bachelor's degree. This correlates to a \$12,000 a year wage premium for those how have a master's degree. The National Association of Colleges and Employers (NACE) recently looked at the 2020 starting salaries for master's and bachelor's degrees (Table 1). They found that starting salaries for graduates with master's degrees, for most majors, were considerably higher than their bachelor counterparts.

See attached proposal with Table 1: Differential between average starting salaries for Class of 2020 graduates earning bachelor's and master's degrees

## Student demand: Provide evidence of both short-term and long-term student demand for the credential/degree.

As the accessibility of higher education increases, so will the number of trained graduates with a bachelor's level degrees. The demand for new graduate degree programs is expanding to meet the needs of this skilled labor force. With the ever-expanding list of graduate level certificates offered at UTSA, this program is primed to address a need to prepare students to meet the marketable skills required for the multi-disciplinary market. Employers are looking for creative problem solvers and strong communicators. People who can embrace change and lead with ethics and integrity. Earning a multidisciplinary studies degree prepares students for these needs and shows employers that they can approach situations from a variety of viewpoints. In many ways it's an ideal degree for today's ever-changing work environment for professionals. The student population that would benefit most from this degree option

4

would be non-degree-seeking, part-time graduates enrolled in certificate programs and graduate credit courses. Table 2 highlights the number of students that would be ideal candidates for a master's degree in multidisciplinary studies over the past four years. This degree would also be beneficial for women because of the disproportionate number of women non-degree-seeking, part-time graduates.

#### See attached proposal with Table 2: Institutional Enrollment 2018-2022

We assume that students take two or three courses each semester. The enrollment numbers also assume that we admit students for cohorts that begin in Fall 2023 or Spring 2024. Enrollment projects for the first five years of the program, including new students, projected attrition, cumulative headcount, FTE, and graduates are provided below. Students will be enrolled in the spring, fall, and summer semesters. The first-year enrollment estimation is 15 and will increase by approximately 15 students each year over the prior year. The attrition estimation is around 20% and approximately 70% of students will graduate in their second year in the program. The table below presents the details.

#### See attached proposal with Table 3: Enrollment Projections

The number of graduate certificates awarded at UTSA has increased yearly by over 20% since 2018. In 2020-2021 there were 155 graduate certificates awarded (Table 4). Currently, most students who pursue certificates as a secondary program also pursue a graduate degree as their primary program (Table 5). The proposed program will give students pursuing a graduate certificate as their primary program a clear path to a degree with the addition of one additional certificate. In addition, undergraduate students within multidisciplinary studies have requested the addition of a professional graduate degree program that allows them to have the same flexibility with degree design as undergraduate degrees in multidisciplinary studies. Tables 4 and 5 information was provided by the Office of Institutional Research & Analysis.

## See attached proposal with Table 4: Certificates Awarded and Table 5: Certificates Enrollment

# Existing Programs: Demonstrate the relationship between the proposed program and existing programs and any potential effects on enrollment for existing programs.

This will be first M.S. in multi-disciplinary program at UTSA and will be open to all students and will recruit students from the community. This program is based on the current graduate curriculum and certificate programs through a collaborative effort and partnership between Carlos Alvarez College of Business, College of Education and Human Development, Klesse College of Engineering and Integrated Design, College for Health, Community and Policy, College of Sciences, University College, and School of Data Science. Students have the flexibility to create their own degree programs by combining two certificates, offered by a single or any two colleges, into one degree. The students would take two certificates offered either fully online, in-person, or a hybrid modality.

The Graduate School at UTSA currently offers 35 graduate certificate programs. These are located across six academic colleges including: Alvarez College of Business, Klesse College of Engineering and Integrated Design, College of Education and Human Development, College of Liberal and Fine Arts, College of Health, Community, and Policy, College of Sciences, and University College. The proposed M. S. in MDS program would enable students pursuing graduate certificates to receive an actual degree that will help elevate them in their career. As previously demonstrated graduates with a master's degree have a considerably higher starting salary than those with bachelor's degrees. The M.S. in Multidisciplinary Studies degree is comparable to the program offered through University of Maryland, University Of South Dakota, Texas Tech University, University of Incarnate Word, etc.

The proposed program would complement existing graduate certificate programs, enabling the students receiving graduate certificates to obtain M.S. degrees without taking students from any existing graduate degree programs. We expect an increase in the number of students earning certificates because our program will allow non-degree seeking students the ability to earn a degree by completing one additional graduate certificate. Additionally, the program could also serve as an ecumenical transdisciplinary starter designed to be a feeder of students into our disciplinary graduate programs.

# Faculty availability: Provide information on appropriately-credentialed faculty available to teach courses in the program or a plan to hire additional faculty to support the program if applicable.

The educational objectives of this program are: 1) Students will engage in critical thinking while solving problems across a variety of disciplines; 2) Students will have broadened career opportunities and fill the industry need for more capable professionals with diversified knowledge; and 3) Student will learn to apply methodologies and tools to address real-world challenges through interdisciplinary collaborations.

The existing Master of Science degree programs and their curriculum emphasize topics in each classical domain, may not provide sufficient grounding and holistic means on how to use the knowledge and skills to carry out interdisciplinary tasks. Additionally, graduates with bachelor's degrees in multidisciplinary studies are up 60% over the last ten years. The new degree program will provide a clear pathway for these students to continue their multi-disciplinary degrees.

Curriculum: Discuss or provide outline of the curriculum designed to build workforce-specific skills and knowledge, including new courses that will be needed. Describe what career-engaged learning experiences are incorporated in the curriculum to prepare students for the intended workforce.

The M.S. in Multidisciplinary Studies will require the development of the following course.

• MDS 5013 Independent Study. Students will be required to complete an independent project to answer some pertinent research question. Additionally, the students will present the findings and generate professional report. The candidates for the M.S. in MDS degree are required to complete this course with a grade of "B" (3.0) or better.

To satisfy the comprehensive examination requirement, candidates for the M.S. in Multidisciplinary Studies will be required to complete a course designated from one of concentrations selected (certificate areas) with a grade of "B" (3.0) or better. For example, if a student completes the Graduate Certificates in Data Science and I-STEM Education, the student could select EDU 5003 Research Methods or MDS 5013 to meet their comprehensive exam requirements.

This model aligns with the structure of multiple master's degree programs at UTSA. To satisfy the comprehensive examination requirement, candidates for the M.B.A. degree are required to complete MBA 5613 Strategic Management and Policy with a grade of "B" (3.0) or better, candidates for the M.S. Business degree are required to complete MGT 5903 Strategic Management and Policy with a grade of "B" (3.0) or better, candidates for the M.S. in Data Analytics are required to complete DA 6833 Data Analytics Practicum II with a grade of "B" (3.0) or better, candidates for the M.S. degree in Information Technology are required to complete IS 6813 Strategic Management of Information Technology with a grade of "B" (3.0) or better, students who earn an average of 3.0 or higher in the combination of ACC 5163 Ethics and Accountant's Professional Responsibility, ACC 6013 Financial Accounting Theory, and ACC 5863 Advanced Financial Accounting will satisfy the comprehensive examination requirement for the MACY degree, and candidates for the Master of Social Work degree are required to complete SWK 5433 Specialized Field Practicum IV and Integrative Seminar with a grade of "B" (3.0) or better.

Workforce: Discuss how relevant workforce representatives from business, industry, non-profits, etc. have been involved/consulted in the creation and design of the program. Describe the planned ongoing engagement after program launch to review and revise program curriculum.

No new faculty will be required for this program. This program has multiway connections to the seven colleges with their tenured/tenure-track faculty members. Many faculty members in these colleges are qualified to teach the courses in the existing graduate certificate programs. The Multidisciplinary Studies department has three faculty including Drs. Karen Daas, Rebecca Schroeder, and Brianna Roberts, who have Ph.D. degrees and are qualified to teach the independent study (capstone) course. The faculty members of University College and the learning facilities and equipment are sufficient to develop the new course.

Program Assessment and Evaluation: Clearly articulate the program objectives and a plan to assess student outcomes. The department/school or other unit overseeing the program of study should have a continuous improvement process in place that informs curriculum revision to better achieve the objectives of the program.

N/A

Costs and Revenues: (done with AA Financial and Administrative Team) Provide a business plan proforma that lays out the anticipated costs of the program, the anticipated revenues and any new investments needed to meet all costs, including instruction, outreach/marketing, administration, etc.

N/A

#### **Attach File**

MS MDS Degree program proposal 10-11-2022.docx

Is this a new doctoral program?

No

#### **Degree Credit Hours**

30

Online Option III Program: Program model that includes adding an entirely separate and additional cohort of students outside of your residential student population and/or appeals to working adults and adults that are managing a family and going back to school that would have otherwise not been able to attend UTSA.

## **Catalog Integration**

Catalog Integration: Provide a description of the program, including any program-specific or department-specific admission requirements.

The program is open to applicants who meet general University admission requirements for a graduate degree program. Applicants who are currently enrolled in a graduate certificate program at UTSA will be required to apply for admission to UTSA as a graduate degree seeking student.

Degree Requirements – For undergraduate programs, list the required/core courses, general education courses, and prescribed and free elective courses for the program, along with total semester credit hours required. For graduate programs, list the required/core courses, support courses, approved elective courses, thesis/non-thesis option (master's) and doctoral requirements for the program, along with total semester credit hours required.

To earn the non-thesis M.S. in Multidisciplinary Studies, students must complete 30 semester credit hours. To satisfy the comprehensive examination requirement, candidates for the M.S. in Multidisciplinary Studies will be required to complete a course designated from one of concentrations selected (certificate areas) or MDS 5013 with a grade of "B" (3.0) or better to meet their comprehensive exam requirements.

## **Supporting Documentation and Review**

### Final Proposal (to be sent to UT System and THECB for approval)

2023-01-31 Master's Degree Program Request Form MS Multidisciplinary Studies\_.docx

2023-01-31 Letter to A Holmes re Proposal in MS in MDST.docx

Certification Form for Electronically Delivered and Off-Campus Education Programs-2-2020 MS Multidisciplinary Studies.docx

#### **UT System and THECB Requirements for this Proposal/Notes**

Proposal will need UT System/THECB review/approval and requisite documents, including the distance ed. certification form.

#### **SACSCOC Requirements for this Proposal/Notes**

Proposal does not require SACSCOC approval.

#### **Reviewer Comments**

Debbie Rappaport (fjs556) (Thu, 28 Apr 2022 18:20:30 GMT): Approving proposal at the UC Graduate Curriculum Committee Chair step as we do not have anyone in this role at this time.

Debbie Rappaport (fjs556) (Wed, 04 May 2022 23:29:31 GMT): Proposal was review and approved at the May 4, 2022 Academic Council meeting

**Debbie Rappaport (fjs556) (Fri, 27 May 2022 18:02:34 GMT):** Rollback: Per Ginger Hernandez--proposal needs to be rolled back so that the Associate Dean can develop the full proposal and THECB documents.

Debbie Rappaport (fjs556) (Thu, 03 Nov 2022 18:27:36 GMT): Rollback: Roll back per Ginger; Grad Council still needs to review and approve degree proposal.

Debbie Rappaport (fjs556) (Wed, 07 Dec 2022 16:29:46 GMT): Rollback: Rolling back per conversation with Ginger Hernandez to update proposal which was approved by Grad Council

Ambika Mathur (ujl745) (Wed, 07 Dec 2022 18:37:14 GMT): Rollback: Incorporate graduate council changes

**Debbie Rappaport (fjs556) (Thu, 08 Dec 2022 20:28:53 GMT):** Proposal was mistakenly rolled back to wrong GR Vice Provost role. Updating workflow to correct. Proposal was approved by Academic Council on May 5, 2022. Updating proposal to add suggestions by Grad Council.

Ginger Hernandez (khw579) (Fri, 16 Dec 2022 17:53:36 GMT): Updated per Dr. Niu's request

Key: 468