

MULTIDISCIPLINARY STUDIES

Mission Statement

The Multidisciplinary Studies Program is committed to innovative, integrative, and student-centered education. Grounded in the values of flexibility, critical inquiry, and academic rigor, the program empowers students to chart unique academic pathways that align with their personal, professional, and intellectual goals. Through cross-disciplinary learning and experiential opportunities, the program fosters creative problem-solving, collaboration, and adaptability for an ever-evolving global workforce.

General Information

Housed within University College, the Multidisciplinary Studies Program serves students whose academic and career interests span multiple disciplines. The program offers both Bachelor of Arts (B.A.) and Bachelor of Science (B.S.) degrees, each requiring a carefully constructed plan of study across three disciplinary areas. The B.A. degree is also offered in a 100% online format.

Multidisciplinary Studies is ideal for students seeking a flexible, interdisciplinary education that prepares them for careers in business, public service, health, technology, education, communication, and beyond. Students benefit from academic advising, capstone experiences, and access to faculty and programming across UT San Antonio's colleges.

Program Outcomes

Graduates of the Multidisciplinary Studies program will be able to:

- Demonstrate foundational knowledge in three distinct disciplines.
- Synthesize concepts across multiple fields to examine complex questions and problems.
- Apply communication, research, and analytical skills in academic and professional contexts.
- Complete an integrative capstone project that demonstrates interdisciplinary mastery.
- Utilize digital and technological tools relevant to their chosen fields.

Degrees Offered

- **Bachelor of Arts (B.A.) in Multidisciplinary Studies**
 - **Bachelor of Arts (B.A.) in Multidisciplinary Studies – 100% Online**
- **Bachelor of Science (B.S.) in Multidisciplinary Studies**
 - **Bachelor of Science (B.S.) in Multidisciplinary Studies – 100% Online**

B.A. in Multidisciplinary Studies

The B.A. degree is designed for students interested in combining the humanities, social sciences, and other non-STEM areas. It requires 15 credit hours in one focus area, and 12 credit hours each in two additional focus areas. The degree emphasizes communication, critical thinking, and integrative learning.

The B.A. degree is also offered fully online. Online students may select from approved focus areas including Business, Communication, Data Science, Digital Communication, Geography and Environmental Sustainability (starting Fall 2025), Global Affairs, Health, Humanities, Political Science, and Sociology.

B.S. in Multidisciplinary Studies

The B.S. degree emphasizes STEM-oriented disciplines and requires students to select at least two focus areas from the College of Sciences, the College of Engineering and Integrated Design, the College of AI, Cyber and Computing, or other approved STEM fields. This degree supports niche academic tracks such as Artificial Intelligence, Cyber Intelligence, and Data Science. The B.S. degree is also offered fully online.

Degree Requirements

All Multidisciplinary Studies degrees require completion of the **UT San Antonio Core Curriculum (42 credit hours)**, foundational technology and communication courses, three approved focus areas, multidisciplinary studies courses (Introduction and Capstone), and free electives.

- **B.A. Degree:** 15+12+12 credit hours across three disciplines; 27 credit hours of electives.
- **B.S. Degree:** 18+15+15 credit hours across three disciplines; 18 credit hours of electives (at least 6 upper-division).

Students must complete at least 39 upper-division credit hours as part of the 120-hour degree. Courses selected for each focus area must be approved by the Multidisciplinary Studies Program Director and meet GPA minimums.

- B.A. in Multidisciplinary Studies (p. 1)
 - B.A. in Multidisciplinary Studies Online
- B.S. in Multidisciplinary Studies (p. 3)
 - B.S. in Multidisciplinary Studies Online
 - Dual B.S. in Multidisciplinary Studies / B.S.N.

Bachelor of Arts Degree in Multidisciplinary Studies

The Bachelor of Arts (B.A.) degree in Multidisciplinary Studies is a multidisciplinary degree which allows students much flexibility in designing degree programs that relate to their personal academic and career goals. Students will complete the University Core Curriculum requirements and take a cohesive set of courses from three different focus areas. For more information about the available focus areas and their required courses, please visit the University College website: <https://uc.utsa.edu/programs/mdst.html>.

The B.A. degree in Multidisciplinary Studies is also offered in a 100 percent online format (<https://online.utsa.edu/>). Students pursuing the 100 percent online format must fulfill all degree requirements in the same manner as residential students. Note that select focus areas are available online. For more information about the focus areas that are

available 100% online, please visit the University College website: <https://uc.utsa.edu/programs/mdst.html>.

The Multidisciplinary Studies major permits an interdisciplinary approach to education, allowing students the opportunity to acquire a well-rounded educational background and problem-solving skills. The objectives of the program are to develop students that have a solid foundation in the content material of three different disciplines and are skilled in communication, critical thinking and analysis, investigating and solving problems, managing tasks, and relating to others. The program allows students to develop academic themes or topics that fall outside the usual disciplinary boundaries. The degree program will provide a vehicle to achieve baccalaureate degrees for those students whose interests lie in multiple areas.

This degree program is meant to encourage and support creativity, innovation, critical thinking, and integrative learning. The multidisciplinary nature of the program is designed to develop students' ability to combine different fields into a structured format. Since the program involves coursework from departments across the University, it offers students opportunities to capitalize upon diverse personal interests and talents through a combination of study and academic experiences appropriate to meet their educational and long-term career goals.

The minimum number of semester credit hours required for this degree is 120, including Core Curriculum requirement hours. Thirty-nine of the 120 total semester credit hours required for the degree must be at the upper-division level.

Students receiving a Bachelor of Arts degree in Multidisciplinary Studies may not receive a double major or a minor.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

Core Curriculum Requirements (42 semester credit hours)

Students seeking the B.A. degree in Multidisciplinary Studies must fulfill University Core Curriculum requirements in the same manner as other students. If courses are taken to satisfy both degree requirements and Core Curriculum requirements, then students may need to take additional courses in order to meet the minimum number of semester credit hours required for this degree.

CS 1173 may be used to satisfy a foundational course and the Mathematics core requirement.

COM 2113 or ENG 2413 may be used to satisfy a communication course and the Core Component Area Option requirement.

Click here to view the list of all Core Curriculum Component Area Requirements (<https://catalog.utsa.edu/undergraduate/bachelorsdegreeregulations/degreerequirements/corecurriculumcomponentarearequirements/>).

Degree Requirements

All candidates for the B.A. degree in Multidisciplinary Studies must complete the following 51 semester credit hours.

Code	Title	Credit Hours
A. Multidisciplinary Studies Foundation Courses		
1. Technology Requirement. Select one of the following:		3

CS 1063	Introduction to Computer Programming I	
CS 1083	Programming I for Computer Scientists	
CS 1173	Data Analysis and Visualization (core or major)	
DS 4003	Introduction to Data Science	
DDTI 3003	Applied Data Science and AI for All	
DS 4013	Programming for Data Science	
ISC 1413	Excel for Business Information Systems	
ISC 2053	Programming I	
2. Communications Requirement. Select one of the following:		3
COM 1043	Introduction to Communication	
COM 1053	Business and Professional Speech	
COM 2113	Public Speaking (core or major)	
COM 2343	Introduction to Mass Communication	
COM 2733	Introduction to Digital Communication	
ENG 2413	Technical Writing (core or major)	

B. Multidisciplinary Studies Fields of Study

All candidates for the degree must select courses to satisfy the requirements of the following three focus areas based on three distinct disciplines: 39

1. Focus Area One: 15 semester credit hours of courses within a single discipline, content area, or certificate program with at least 9 hours at the upper-division level.
2. Focus Area Two: 12 semester credit hours of courses within a single discipline, content area, or certificate program with at least 6 hours at the upper-division level.
3. Focus Area Three: 12 semester credit hours of courses within a single discipline, content area, or certificate program with at least 6 hours at the upper-division level.

Courses selected to satisfy a focus area must be approved by the Multidisciplinary Studies Program Director. Furthermore, the courses used to satisfy each focus area must be completed with at least a 2.00 grade point average. Focus areas must be from at least two different colleges.

C. Multidisciplinary Studies Courses

MDS 2013	Introduction to Multidisciplinary Studies	3
MDS 4983	Senior Seminar for Multidisciplinary Studies	3

D. Free Electives 27

All candidates for this degree must complete 27 semester hours of free electives, at least 15 of which (or enough to reach 39 upper-division hours overall) must be at the upper-division level.

Total Credit Hours 78

Course Sequence Guide for B.A. Degree in Multidisciplinary Studies

This course sequence guide is designed to assist students in completing their UT San Antonio undergraduate Multidisciplinary Studies degree requirements. *This is merely a guide, and students must satisfy other requirements of this catalog and meet with their academic advisor for individualized degree plans.* Progress within this guide depends upon such factors as course availability, individual student academic preparation, student time management, work obligations, and individual financial considerations. Students may choose to take courses during Summer terms to reduce course loads during long semesters.

B.A. in Multidisciplinary Studies – Four-Year Academic Plan**First Year**

		Credit Hours
Fall		
AIS 1203	Academic Introduction and Strategies (core)	3
HIS 1043 or HIS 1053 or HIS 2053	United States History: Pre-Columbus to Civil War Era (core) or United States History: Civil War Era to Present or Texas History	3
MDS 2013	Introduction to Multidisciplinary Studies	3
WRC 1013	Freshman Composition I (core)	3
Mathematics (core)		3
Credit Hours		15

Spring

HIS 1043 or HIS 1053 or HIS 2053	United States History: Pre-Columbus to Civil War Era (core) or United States History: Civil War Era to Present or Texas History	3
WRC 1023	Freshman Composition II (core)	3
Technology Foundation Course (Section A.1)		3
Focus Area 1 lower-division course		3
Life & Physical Sciences (core)		3
Credit Hours		15

Second Year

Fall		
POL 1013	Introduction to American Politics (core)	3
Communication Course (Section A.2)		3
Focus Area 2 lower-division course		3
Focus Area 3 lower-division course		3
Life & Physical Sciences (core)		3
Credit Hours		15

Spring

POL 1133 or POL 1213	Texas Politics and Society (core) or Civil Rights in Texas and America	3
Focus Area 1 lower-division course		3
Focus Area 2 lower-division course		3
Creative Arts (core)		3
Language, Philosophy & Culture (core)		3
Credit Hours		15

Third Year

Fall		
Focus Area 1 upper-division course		3
Focus Area 2 upper-division course		3
Focus Area 3 lower-division course		3
Social and Behavioral Sciences (core)		3
Component Area Option (core)		3
Credit Hours		15

Spring

Focus Area 1 upper-division course		3
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Focus Area 2 upper-division course	3	
Focus Area 3 upper-division course	3	
Free elective	3	
Free elective	3	
Credit Hours		15

Fourth Year

Fall		
Focus Area 1 upper-division course		3
Focus Area 3 upper-division course		3
Free elective (upper division)		3
Free elective		3
Free elective (upper division)		3
Credit Hours		15

Spring

MDS 4983	Senior Seminar for Multidisciplinary Studies	3
Free elective		3
Free elective (upper division)		3
Free elective (upper division)		3
Free elective (upper-division)		3
Credit Hours		15
Total Credit Hours		120

Bachelor of Science Degree in Multidisciplinary Studies

The Bachelor of Science (B.S.) degree in Multidisciplinary Studies allows students to create a customized degree program or to select from an existing degree program developed around academic themes or niche areas, such as Artificial Intelligence, Cyber Intelligence, Data Science, and Pre-Nursing, that fall outside traditional disciplinary boundaries and helps support student achievement of their personal academic and career goals. Students will complete the University Core Curriculum requirements and take a cohesive set of courses from three different disciplinary areas, one of which must be housed in the College of Sciences or the College of Engineering and Integrated Design, or be STEM-oriented. For more information about the focus areas and their required courses, please visit the University College website: <https://uc.utsa.edu/programs/mdst.html>.

All students interested in the Pre-Nursing pathway will initially be admitted to the Nursing Studies program within the Bachelor of Science in Multidisciplinary Studies in University College. Admission to the Nursing Studies program does not guarantee admission to the UT Health San Antonio Bachelor of Science in Nursing (BSN) program (<https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Futscsa.edu%2F%2Fnursing%2F%2Fprograms%2Fundergraduate%2Fbsn-traditional&data=05%7C02%7CCatalogEditor%40utsa.edu%7C31a9f0ecd1664480360708deb0ff7091%7C3a228dfbc64744cb88357b20617fc9%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIslAIiOiJXa%3D%3D%7C0%7C%7C%7C&sdata=Mm50e%2Fq17Rw2H2%2B8ZXuYE3G%2FG6D6ckuCr%2BB3ZH05XSU%3D&reserved=0>). Only students admitted to the BSN program through UT Health San Antonio may declare the Pre-Nursing pathway within the Bachelor of Science in Multidisciplinary Studies. Students who are not admitted to the BSN program within the designated progression timeline will be required to

declare the Bachelor of Arts in Multidisciplinary Studies (p. 1) or another academic program.

The B.S. degrees in Multidisciplinary Studies is also offered in a 100 percent online format (<https://online.utsa.edu/>). Students pursuing the 100 percent online format must fulfill all degree requirements in the same manner as residential students.

The objectives of the program are to develop students that have a solid foundation in the content material of three different disciplines and are skilled in communication, critical thinking and analysis, investigating and solving problems, managing tasks, and relating to others. The degree program will provide a vehicle for students whose interests lie in multiple areas.

Students selecting the Multidisciplinary Studies major will be expected to achieve the following learning outcomes:

1. Ability to gather information and demonstrate an understanding of concepts and principles from three different fields of study.
2. Ability to apply concepts from three areas of focus and demonstrate their mastery of the knowledge and skills in a capstone course.
3. Ability to show through a final project that they have integrated different areas of study in order to examine a question, problem, or phenomenon.
4. Ability to demonstrate communication and computer competencies.

The minimum number of semester credit hours required for this degree is 120, including Core Curriculum requirement hours. Thirty-nine of the 120 total semester credit hours required for the degree must be at the upper-division level.

Students receiving a Bachelor of Science degree in Multidisciplinary Studies may not receive a double major or a minor.

Core Curriculum Requirements (42 semester credit hours)

Students seeking the B.S. degree in Multidisciplinary Studies must fulfill University Core Curriculum requirements in the same manner as other students. If courses are taken to satisfy both degree requirements and Core Curriculum requirements, then students may need to take additional courses in order to meet the minimum number of semester credit hours required for this degree.

CS 1173 may be used to fulfill both the Mathematics core requirement and as a major course requirement.

COM 2113 or ENG 2413 may be used to fulfill both a Component Area Option core requirement and as a major course requirement.

Click here to view the list of all Core Curriculum Component Area Requirements (<https://catalog.utsa.edu/undergraduate/bachelorsdegreeregulations/degreerequirements/corecurriculumcomponentarearequirements/>).

Degree Requirements

All candidates for the B.S. degree in Multidisciplinary Studies must complete the following 78 semester credit hours.

Code	Title	Credit Hours
A. Multidisciplinary Studies Foundation Courses		
1. Technology Requirement. Select one of the following:		3

CS 1063	Introduction to Computer Programming I	
CS 1083	Programming I for Computer Scientists	
CS 1173	Data Analysis and Visualization (core or major)	
DDTI 3003	Applied Data Science and AI for All	
DS 4003	Data Science	
DS 4013	Programming for Data Science	
ISC 1413	Excel for Business Information Systems	
ISC 2053	Programming I	
2. Communications Requirement. Select one of the following:		3
COM 1043	Introduction to Communication	
COM 1053	Business and Professional Speech	
COM 2113	Public Speaking (core or major)	
COM 2343	Introduction to Mass Communication	
COM 2733	Introduction to Digital Communication	
ENG 2413	Technical Writing (core or major)	

B. Multidisciplinary Studies Fields of Study

All candidates for the degree must select courses to satisfy the requirements of the following three focus areas based on three distinct disciplines: 48

1. Focus Area One: 18 semester credit hours of STEM-oriented courses within a single focus area with at least 9 hours at the upper-division level.
 2. Focus Area Two: 15 semester credit hours of STEM-oriented courses within a single focus area with at least 9 hours at the upper-division level.
 3. Focus Area Three: 15 semester credit hours of courses within a single focus area with at least 9 hours at the upper-division level.
- Courses selected to satisfy a focus area must be approved by the Multidisciplinary Studies Program Director. Furthermore, the courses used to satisfy each focus area must be completed with at least a 2.00 grade point average.

C. Multidisciplinary Studies Courses

MDS 2023	Introduction to Multidisciplinary Studies	3
MDS 4983	Senior Seminar for Multidisciplinary Studies	3

D. Free Electives 18

All candidates for this degree must complete 18 semester hours of free electives, at least 6 of which (or enough to reach 39 upper-division hours overall) must be at the upper-division level.

Total Credit Hours 78

Course Sequence Guide for B.S. Degree in Multidisciplinary Studies

This course sequence guide is designed to assist students in completing their UT San Antonio undergraduate Multidisciplinary Studies degree requirements. *This is merely a guide, and students must satisfy other requirements of this catalog and meet with their academic advisor for individualized degree plans.* Progress within this guide depends upon such factors as course availability, individual student academic preparation, student time management, work obligations, and individual financial considerations. Students may choose to take courses during Summer terms to reduce course loads during long semesters.

B.S. in Multidisciplinary Studies – Four-Year Academic Plan**First Year**

Fall		Credit Hours
AIS 1203	Academic Introduction and Strategies (core)	3
HIS 1043 or HIS 1053 or HIS 2053	United States History: Pre-Columbus to Civil War Era (core) or United States History: Civil War Era to Present or Texas History	3
WRC 1013	Freshman Composition I (core)	3
Technology Foundation Course (Section A.1)		3
Mathematics (core)		3

Credit Hours **15**

Spring

WRC 1023	Freshman Composition II (core)	3
Focus Area 1 lower-division course		3
Focus Area 1 lower-division course		3
Focus Area 2 lower-division course		3
Free elective		3

Credit Hours **15**

Second Year**Fall**

Communication Foundation Course (Section A.2)		3
Focus Area 1 lower-division course		3
Focus Area 2 lower-division course		3
Focus Area 3 lower-division course		3
Free elective		3

Credit Hours **15**

Spring

MDS 2023	Introduction to Multidisciplinary Studies	3
POL 1013	Introduction to American Politics (core)	3
Focus Area 1 upper-division course		3
Focus Area 2 upper-division course		3
Focus Area 3 lower-division course		3

Credit Hours **15**

Third Year**Fall**

POL 1133 or POL 1213	Texas Politics and Society (core) or Civil Rights in Texas and America	3
Focus Area 1 upper-division course		3
Focus Area 2 upper-division course		3
Focus Area 3 upper-division course		3
Life & Physical Sciences (core)		3

Credit Hours **15**

Spring

HIS 1043 or HIS 1053 or HIS 2053	United States History: Pre-Columbus to Civil War Era (core) or United States History: Civil War Era to Present or Texas History	3
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Focus Area 1 upper-division course	3
Focus Area 3 upper-division course	3
Life & Physical Sciences (core)	3
Free elective	3

Credit Hours **15**

Fourth Year**Fall**

Free elective		3
Focus Area 2 upper-division course		3
Focus Area 3 upper-division course		3
Social & Behavioral Sciences (core)		3
Creative Arts (core)		3

Credit Hours **15**

Spring

MDS 4983	Senior Seminar for Multidisciplinary Studies	3
Free elective upper-division course		3
Free elective upper-division course		3
Component Area Option (core)		3
Language, Philosophy, & Culture (core)		3

Credit Hours **15**

Total Credit Hours **120**

Digital Design, Technology, and Innovation (DDTI) Courses**DDTI 1001. Data Science and AI for All. (1-0) 1 Credit Hour.**

The course is designed for students from all academic backgrounds to develop an interest in data science and artificial intelligence. Introduction to the concept of analyzing data culled from a variety of sources, and understanding the methods of aggregating data, forming coherent queries, and building machine learning models to derive insights from data. Topics may include Python programming using Jupyter Notebook, R programming, text analysis, database, data analytics, and data visualization. (Same as DS 1001. Credit cannot be earned for both DS 1001 and DDTI 1001.). Course Fees: LRMS \$12.50; DL01 \$25.

DDTI 1423. Data Driven Thinking in the Age of AI. (3-0) 3 Credit Hours.

This course equips students with foundational data-literacy skills needed to succeed in an artificial intelligence (AI)-driven world. The course introduces core concepts in data visualization, statistical reasoning, and computational thinking, and connects these concepts to how modern AI models learn from data. Students will learn to (1) understand fundamental principles of AI, (2) visualize, interpret, and recognize patterns in data, and (3) use state-of-the-art AI tools to answer real-world questions through hands-on activities. To further prepare students for AI-related careers, essential professional skills—such as presentation, project management, teamwork, and leadership—are integrated alongside technical learning and practice. No prior programming experience is required. Course Fee: LRMS \$37.50.

DDTI 2153. Game Programming. (3-0) 3 Credit Hours.

Prerequisite: Computer literacy and CS 2153 or equivalent. Introduction to game design and programming. Common practices used in the video game industry today will also be introduced. Students will learn the basics of creating a PC game through lecture materials, hands-on laboratories, and a final project in which the students will build a simple game. (Same as CS 1153. Credit cannot be earned for both CS 1153 and DDTI 2153.) Generally offered: Fall. Course Fees: LRMS \$37.50; DL01 \$75.

DDTI 3003. Applied Data Science and AI for All. (3-0) 3 Credit Hours.

This course introduces students from all academic backgrounds to the practical applications of data science and artificial intelligence. Moving beyond theory, students engage in hands-on projects using real-world datasets to explore data collection, cleaning, visualization, and analysis. Core topics include Python programming in Jupyter Notebook, data analytics, machine learning fundamentals, and data storytelling. The course also introduces generative AI tools and concepts, such as large language models (LLMs), AI-generated content, and ethical considerations in generative applications. Students will apply these tools to solve problems and communicate insights across disciplines. No prior coding experience is required. Course Fees: LRMS \$37.50; DL01 \$75.

DDTI 3013. Game Architecture. (3-0) 3 Credit Hours.

Prerequisite: CS 1153, DDTI 2153, or CS 2123. This course provides a "from-scratch" approach to understanding game program structure without relying on commercial game engines. Topics include rendering, game loops, input handling, collision detection, physics, game AI, procedural generation, and game architecture. Students will create many small game projects that demonstrate these principles. It is ideal for students seeking a deeper understanding of game systems. (Same as CS 3003. Credit cannot be earned for both CS 3003 and DDTI 3013.). Course Fee: DL01 \$75; LRMS \$37.50.

DDTI 3023. Statistical Analysis for Data Science. (3-0) 3 Credit Hours.

Prerequisite: MAT 1073 or the equivalent. Introduction to the scientific method; principles of sampling and experimentation; scales of measurement; exploratory data analysis; basic probability; models for discrete and continuous data; simple simulations and inferences based on resampling; fundamentals of hypothesis testing and confidence intervals; analysis of variance and linear regression model; tensors and matrices. The course will emphasize data analysis and interpretation and effective communication of results through reports or presentations within data science contexts. (Same as DS 3023. Credit cannot be earned for both DS 3023 and DDTI 3023.). Course Fee: DL01 \$75; LRMS \$37.50.

DDTI 4003. Introduction to Data Science. (3-0) 3 Credit Hours.

Prerequisite: MAT 1073 or the equivalent; students may not enroll without 30 credit hours completed. An introduction to foundational data science knowledge and lifecycle. Focus areas on data visualization, data curation, ethics, and tools available for analysis will be covered. (Same as DS 4003. Credit cannot be earned for both DS 4003 and DDTI 4003.). Course Fee: DL01 \$75; LRMS \$37.50.

DDTI 4013. Programming for Data Science. (3-0) 3 Credit Hours.

Prerequisite: MAT 1073 or the equivalent. An introduction to data-driven programming emphasizing problem solving and critical thinking. Topics will focus on foundational concepts and skills in computer programming. (Same as DS 4013. Credit cannot be earned for both DS 4013 and DDTI 4013.). Course Fee: LRMS \$37.50; DL01 \$75.

DDTI 4023. Data Organization and Visualization. (3-0) 3 Credit Hours.

Prerequisite: DDTI 3023, DDTI 4003, and DDTI 4013 or the equivalents. This course focuses on programming concepts, file input/output, and recursion that are involved in integrating, loading, processing, and transforming data from external sources for exploratory data analysis and visualization using data science software packages and APIs. (Same as DS 4023. Credit cannot be earned for both DS 4023 and DDTI 4023.). Course Fee: LRMS \$37.50; DL01 \$75.

DDTI 4033. Data Mining and Machine Learning. (3-0) 3 Credit Hours.

Prerequisite: Completion of or concurrent enrollment in DDTI 4023 or equivalent. This course utilizes fundamental data science concepts to introduce in-depth analysis, data mining, machine learning, and artificial intelligence. Topics may include clustering, classification, evaluation metrics, supervised and unsupervised learning, search algorithms, intelligent agents, and AI applications in select areas. (Same as DS 4033. Credit cannot be earned for both DS 4033 and DDTI 4033.). Course Fee: DL01 \$75; LRMS \$37.50.

DDTI 4043. Generative Artificial Intelligence. (3-0) 3 Credit Hours.

Prerequisite: DDTI 4033 or equivalent, or instructor consent. This course covers the transformer architecture and fundamental topics such as tokenization, context windows, embeddings, etc. Students will learn to use various APIs, host language models locally, and explore the trade-offs between various state-of-the-art open-source models. Coursework will cover fine-tuning, prompt engineering, hallucination mitigation, and alignment. (Same as DS 4043. Credit cannot be earned for both DS 4043 and DDTI 4043.). Course Fee: DL01 \$75; LRMS \$37.50.

DDTI 4913. Independent Study in Digital Design, Technology, and Innovation. (0-0) 3 Credit Hours.

Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Program Director, and the Dean of the College in which the course is offered. In-depth independent exploration of a focused topic in digital design, creative technologies, or innovation under faculty supervision. Projects may involve design research, prototyping, app or media development, or strategic innovation planning. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree. Course Fees: LRMS \$37.50; DL01 \$75.

DDTI 4933. Internship in Digital Design, Technology, and Innovation. (0-0) 3 Credit Hours.

Prerequisite: Consent of internship coordinator. Supervised professional experience in a workplace or project environment aligned with digital design, technology, innovation, or user experience. Internship placements may include design studios, tech startups, UX teams, innovation labs, or digital media organizations. A reflective component and final report are required. May be repeated for credit, but not more than 6 semester credit hours of internship will apply to a bachelor's degree. Course Fees: LRMS \$37.50; DL01 \$75.

DDTI 4953. Special Topics in Digital Design, Technology, and Innovation. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. An organized course offering specialized study in an emerging or advanced topic within digital design, creative technology, or innovation practice not regularly offered in the standard curriculum. Topics may include AI in design, virtual production, interactive installations, or speculative design. May be repeated for credit when topics vary, but not more than 9 semester credit hours, regardless of discipline, will apply to a bachelor's degree. Course Fees: LRMS \$37.50; DL01 \$75.

Hospitality and Event Management (HEM) Courses

HEM 2103. Introduction to Hospitality and Events Management. (3-0) 3 Credit Hours.

This course provides an overview of the hospitality and events industry, exploring its major sectors including lodging, food and beverage, tourism, and event planning. Students will examine industry trends, career pathways, operational structures, and guest service principles. Emphasizes the economic, social, and cultural impact of hospitality and events globally. Course Fee: LRMS \$37.50.

HEM 2113. Business Computing for Hospitality. (3-0) 3 Credit Hours.

Introduces students to business software applications relevant to hospitality operations. Topics include spreadsheet modeling, database management, point-of-sale systems, and industry-specific platforms. Emphasizes practical computing skills used in event planning, forecasting, and operational analysis. Course Fee: LRMS \$37.50.

HEM 3103. Food and Beverage Cost Controls. (3-0) 3 Credit Hours.

This course provides an introduction to cost control systems in food and beverage operations. Emphasizes inventory procedures, menu pricing strategies, purchasing controls, and labor cost management in hospitality settings. Students will apply practical tools to manage profitability and operational efficiency. Course Fee: LRMS \$37.50.

HEM 3113. Strategic Marketing for Hospitality and Events. (3-0) 3 Credit Hours.

This course examines marketing strategy as it applies to the unique challenges of hospitality and event management. Emphasis is placed on market segmentation, service branding, consumer behavior, and the integration of digital and traditional promotional tools. Students will analyze case studies and create comprehensive marketing plans that reflect strategic decision-making in real-world hospitality and event contexts. The course highlights guest-centric approaches and brand positioning in service-driven environments. Course Fee: LRMS \$37.50.

HEM 3123. Human Resources Management in Hospitality. (3-0) 3 Credit Hours.

Focuses on the human resource functions specific to hospitality organizations. Covers topics such as staffing, employee development, labor relations, performance management, and compliance with employment law. Emphasizes strategic HR practices that support organizational goals in service-driven environments. Course Fee: LRMS \$37.50.

HEM 3143. Hospitality Financial Statement Analysis. (3-0) 3 Credit Hours.

This course examines the interpretation and application of financial statements within hospitality operations. Topics include financial ratios, cash flow analysis, and budgeting, with added focus on accounting principles such as debits, credits, and journal entries. This course is designed to provide a bridge between managerial and financial accounting. Course Fee: LRMS \$37.50.

HEM 4043. Community Engagement in Hospitality and Events. (3-0) 3 Credit Hours.

This course provides students with hands-on experience in planning, supporting, and executing major campus and community events. Through participation in high-impact initiatives such as the NCAA Final Four, Diploma Dash, and Homecoming, students will explore the role of community partnerships, volunteer coordination, and experiential design in the success of public events. Emphasis is placed on civic engagement, stakeholder collaboration, and the application of hospitality principles in real-world settings. Students will reflect on their contributions and evaluate the impact of events on community identity and institutional culture. Course Fee: LRMS \$37.50.

HEM 4163. Hospitality Revenue Management and Pricing. (3-0) 3 Credit Hours.

Examines pricing strategies and revenue optimization in hospitality operations. Topics include demand forecasting, distribution channel management, yield management, and dynamic pricing models. Students will use data-driven tools to make informed revenue decisions. Course Fees: LRMS \$37.50.

HEM 4911. Independent Study in Hospitality and Events Management. (0-0) 1 Credit Hour.

Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Program Director, and the Dean of the College in which the course is offered. Independent reading, research, discussion, and/or writing under the direction of a faculty member on a topic relevant to hospitality and events management. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree. Course Fee: LRMS \$12.50.

HEM 4913. Independent Study in Hospitality and Events Management. (0-0) 3 Credit Hours.

Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Program Director, and the Dean of the College in which the course is offered. Independent reading, research, discussion, and/or writing under the direction of a faculty member on an advanced topic related to hospitality and events management. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree. Course Fee: LRMS \$37.50.

HEM 4933. Internship in Hospitality and Events Management. (0-0) 3 Credit Hours.

Prerequisite: Consent of internship coordinator. Supervised professional experience in hospitality, tourism, food and beverage, or events management, completed with an approved community partner, business, or organization. May be repeated for credit, but not more than 6 semester credit hours of internship will apply to a bachelor's degree. The grade report for this course is either "CR" (satisfactory participation in the internship) or "NC" (unsatisfactory participation in the internship). Course Fee: LRMS \$37.50.

HEM 4953. Special Studies in Hospitality and Events Management. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study in hospitality and events management, not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 9 semester credit hours, regardless of discipline, will apply to a bachelor's degree. Course Fee: LRMS \$37.50.

HEM 4983. Capstone in Hospitality and Events Management. (3-0) 3 Credit Hours.

Prerequisite: Senior standing. This capstone course serves as the culminating academic experience for students in the Hospitality and Events Management program. Students will integrate knowledge and skills acquired throughout their coursework to develop a comprehensive project that addresses real-world challenges in the hospitality and events industry. The course emphasizes strategic planning, critical thinking, and professional communication. Students will work individually or in teams to design, execute, and present a project that demonstrates their readiness for professional practice. Projects may include business plans, event proposals, market analyses, or operational strategies. The course includes a final presentation to a panel of faculty and industry professionals. Course Fee: LRMS \$37.50.

Multidisciplinary Studies (MDS) Courses

MDS 2013. Introduction to Multidisciplinary Studies. (3-0) 3 Credit Hours.

Introduction to Multidisciplinary Studies as an academic program. This course is required for the B.A. degree in Multidisciplinary Studies. It provides foundational skills from various academic areas and methodologies for approaching complex issues across the disciplines. Students develop and apply critical thinking, problem solving, and effective oral and written communication skills to social, political, scientific, and civic problems. The course includes a capstone project in which students plan a program of study appropriate within the Multidisciplinary Studies degree. Generally Scheduled Location: Main Campus, Online/Internet. Course Fee: DL01 \$75; LRMS \$37.50.

MDS 2023. Introduction to Multidisciplinary Studies. (3-0) 3 Credit Hours.

Introduction to Multidisciplinary Studies as an academic program. This course is required for the B.S. Degree in Multidisciplinary Studies. This course integrates experiential learning opportunities with foundational skills from various academic areas and methodologies for approaching complex issues across the disciplines. Students develop and apply critical thinking, problem solving, and effective oral and written communication skills to scientific, engineering, technical, social, and civic problems. The course includes a capstone project in which students design and present the experiential learning project. Course Fees: LRMS \$37.50; DL01 \$75.

MDS 2033. Introduction to Multidisciplinary Studies for Specialty Tracks. (3-0) 3 Credit Hours.

Introduction to Multidisciplinary Studies as an academic program. This course is required for the specialty tracks in the B.A. and B.S. degrees in Multidisciplinary Studies. It provides foundational skills from various academic areas and methodologies for approaching complex issues across the disciplines. Students develop and apply critical thinking, problem-solving, and effective oral and written communication skills to social, political, scientific, and civic problems. The course includes a capstone project in which students plan a program of study appropriate within the specialty tracks of the Multidisciplinary Studies degree. Course Fee: DL01 \$75; LRMS \$37.50.

MDS 3033. Multidisciplinary Studies Co-op Experience. (0-0) 3 Credit Hours.

Prerequisite: Approval for participation in a Cooperative Education experience related to a student's chosen academic pathway. This course is designed for students engaging in an approved Cooperative Education (Co-op) experience aligned with their multidisciplinary academic focus. Students will explore applied, real-world problems encountered during their co-op work placements and connect these experiences to their academic and professional goals. May be repeated for credit. A maximum of 9 semester credit hours of cooperative education may be applied toward a bachelor's degree. The grade report for the course is either "CR" (satisfactory performance) or "NC" (unsatisfactory performance). Students seeking to count this course toward a disciplinary focus or technical elective area must obtain prior approval from their faculty advisor before beginning the co-op assignment. Course Fee: LRMS \$37.50.

MDS 4013. Advanced Writing Strategies for Multidisciplinary Studies. (3-0) 3 Credit Hours.

This advanced writing course is designed for students majoring in multidisciplinary studies. Through presentations, readings, discussion, and writing, graduate students will develop writing and editing skills necessary for their success in the Multidisciplinary Studies program. This course focuses on effective academic writing strategies and techniques, such as argumentation, organization, research, audience, genre, style, and more. (Same as MDS 5013. Credit cannot be earned for both MDS 5013 and MDS 4013.) Course Fee: LRMS \$37.50.

MDS 4043. Multidisciplinary Studies Research Experience. (0-0) 3 Credit Hours.

Prerequisite: Permission in writing (form available) from the instructor, the student's advisor, the Program Director, and the Dean of the University College. Independent or small-group research experience focused on the integration of methods, theories, and perspectives from multiple disciplines. Students engage in advanced research practices appropriate to their individualized Multidisciplinary Studies focus area(s), including problem definition, literature review, research design, data collection or creative inquiry, analysis, and dissemination of results. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree. Course Fee: LRMS \$37.50.

MDS 4200. Multidisciplinary Studies Co-op Experience. (0-0) 0 Credit Hours.

An approved cooperative education (co-op) experience in which students participate in supervised, career-relevant work aligned with one or more of their multidisciplinary areas of study. This course emphasizes the integration of academic learning with practical application in a professional setting and includes a structured self-reflection component. May be repeated.

MDS 4853. Multidisciplinary Study Abroad and Study Away. (3-0) 3 Credit Hours.

An interdisciplinary course linked to UTSA-approved Study Abroad or Study Away programs, allowing students to explore academic themes through global or domestic experiential learning. Topics and locations vary, with opportunities to apply knowledge from multiple disciplinary areas. May be repeated for credit when the topic or destination changes, for a total of up to 6 credit hours. Students must obtain approval from their academic advisor prior to enrollment to ensure alignment with degree requirements. Course Fee: LRMS \$37.50.

MDS 4856. Multidisciplinary Study Abroad and Study Away.. (6-0) 6 Credit Hours.

A comprehensive interdisciplinary learning experience through a UTSA-approved Study Abroad or Study Away program. Students will engage in in-depth academic exploration across cultural, social, or professional contexts relevant to their chosen areas of study. Designed to support integrative learning outcomes in a global or domestic setting. Approval from the student's academic advisor is required prior to registration to ensure the course fulfills degree requirements. Course Fee: LRMS \$37.50.

MDS 4911. Independent Study in Multidisciplinary Studies. (0-0) 1 Credit Hour.

Prerequisites: Permission in writing (form available) from the instructor, the student's advisor, the Program Director, and Dean of the College in which the course is offered. Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree. Course fees: LRMS \$12.50.

MDS 4913. Independent Study in Multidisciplinary Studies. (0-0) 3 Credit Hours.

Prerequisites: Permission in writing (form available) from the instructor, the student's advisor, the Program Director, and Dean of the College in which the course is offered. Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree. Course Fee: LRMS \$37.50.

MDS 4933. Internship in Multidisciplinary Studies. (0-0) 3 Credit Hours.

Prerequisite: Consent of internship coordinator. Supervised experience relevant to the student's program of study within selected community organizations. May be repeated for credit, but not more than 6 semester credit hours of internship will apply to a bachelor's degree. The grade report for this course is either "CR" (satisfactory participation in the internship) or "NC" (unsatisfactory participation in the internship). Course Fee: LRMS \$37.50.

MDS 4953. Special Studies in Multidisciplinary Studies. (3-0) 3 Credit Hours.

Prerequisite: Consent of Instructor. An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 9 semester credit hours, regardless of discipline, will apply to a bachelor's degree. Course Fees: LRMS \$37.50.

MDS 4963. Capstone in Cyber Intelligence. (3-0) 3 Credit Hours.

Prerequisite: Declared major in Multidisciplinary Studies with a Cyber Intelligence track and senior status. This capstone course is the culminating academic experience for students in the Cyber Intelligence program. Students synthesize knowledge from policy, cybersecurity, data analysis, intelligence methods, and risk assessment to address real-world challenges. The course emphasizes analytical reasoning, threat assessment, ethical considerations, and professional communication. Students work individually or in teams to design and execute a comprehensive cyber intelligence project demonstrating applied skills and workforce readiness. Course Fee: LRMS \$37.50.

MDS 4973. Capstone in Game Design. (3-0) 3 Credit Hours.

Prerequisite: Declared major in Multidisciplinary Studies: Game Design track and senior status. This capstone course serves as the culminating academic experience for students in the MDST Game Design program. Students integrate creative, technical, and analytical skills developed throughout the curriculum to design, develop, and present a comprehensive game-related project. Emphasis is placed on game mechanics, user experience, narrative design, iterative development, and professional production workflows. Students work individually or in teams to produce a playable prototype, design portfolio, or applied industry project that demonstrates readiness for careers in game development or related creative technology fields. Course Fee: LRMS \$37.50.

MDS 4983. Senior Seminar for Multidisciplinary Studies. (3-0) 3 Credit Hours.

Prerequisite: Declared major in Multidisciplinary Studies and senior status. The seminar surveys topics in ethics, reinforces writing and communication skills through oral and written presentations and discussions, demonstrates student's progress through a capstone portfolio, and culminates in a senior project approved by the instructor. Generally offered: Fall, Spring. Course Fee: DL01 \$75; LRMS \$37.50.