JumpStart 3ʳᵈ Year- Presentation

Undergraduate Academic Advisor Team

Topics

- Introduction

- JS3 Overview
  - Requirements

- MyDegreePath

- Things you should know

- Career Planning

- Webform

Degree Requirements

Requirements are based on catalog year you entered

2024-2025

Catalog.ucmerced.edu

Remember your catalog year doesn't change.

Important Links

Engr-advising.ucmerced.edu
- **Appointments and Walk-in Hours**
- **Policies**
- **Major info, flow charts, etc.**
- **Engineering specific forms**

Registrar.ucmerced.edu
- **All university policies,**
- **procedures, deadlines**
- **All university forms**

Advising.ucmerced.edu
- **For general campus advising information**

Don't "Google" it – look within the site or catalog

Overview of MyDegreePath

Running a Degree Audit using MyDegreePath

Explore Requirements for Minors/Majors
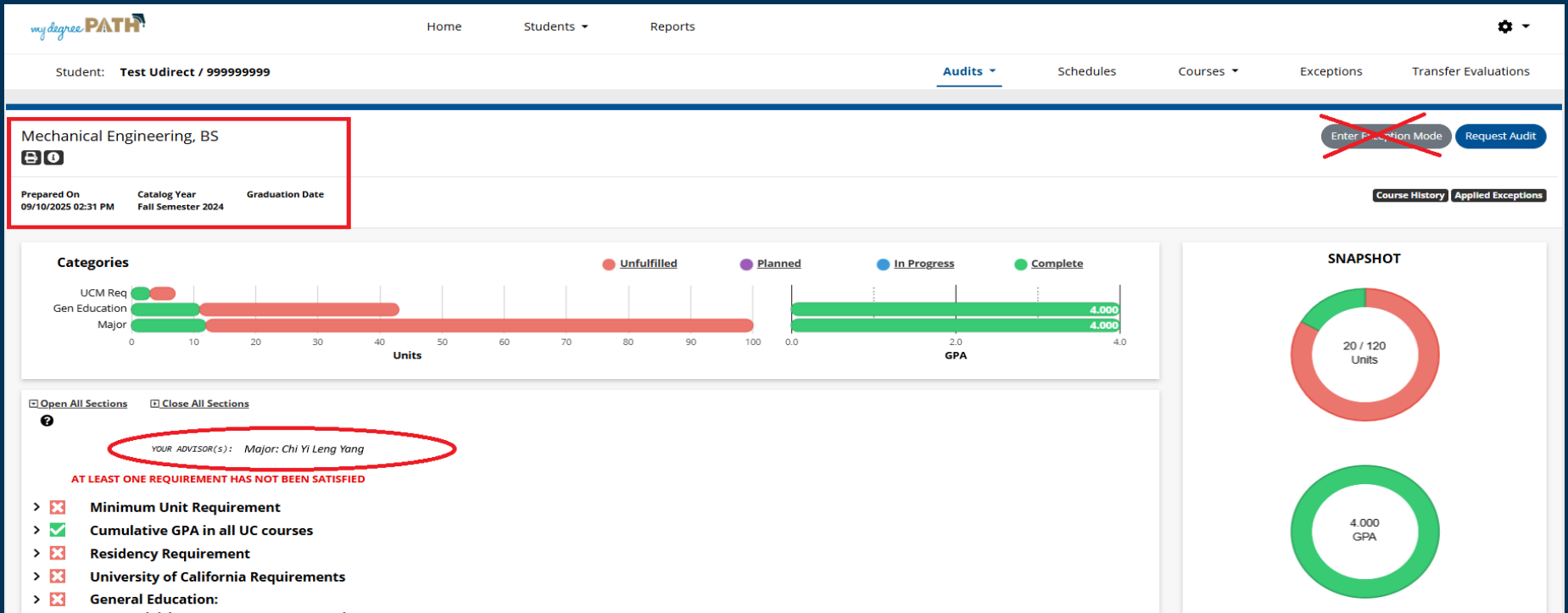
- **An audit is your official student record**
- **Includes all of your completed, in-progress and outstanding degree requirements**

- **After making changes to your courses (adding/dropping) it is recommended you run an audit to see how your changes reflect on your degree audit**

- MyDegreePath Requirement
- Minimum Unit Requirement
- Courses taken
- University Requirement
- General Education
    - Lower Division
    - General Upper Div.
    - GE in Soc, Lit, Media
    - GE in Life Sci, Phys
- Major Requirement
- Emphasis
- Intellectual Experiences

Note the following:
- ✅ and ❌ on **Audit**
- **IP vs letter grade**
- **Non – UC transfer work** * no GPA
- **Course and unit credit** may not be up to date, contact us or registrar
- **Official transcripts only way to update**
- **Official AP/IB need as well**

Again, for an Audit report:
1. log into myconnect.ucmerced.edu,
2. select "MyStudentRecord"
3. select "MyDegreePath"
4. Select "RunAudit"

Creating Grad Plans

MyDegreePath currently does not have the feature to create grad plan.

It is scheduled to return Spring 2026

- You can use grad plan template
  - https://engr-advising.ucmerced.edu/jumpstart3

- You can use graduation plan found on Catalog 2024-2025
  - https://catalog.ucmerced.edu/content.php?catoid=23&navoid=2429

- You can use the 4-year flow charts:
  - https://engr-advising.ucmerced.edu/majors

Name

_____

School of Engineering: Graduation Planning

Semester: Fall 2015   Semester #5   (Example)

Course	Title	Units
MATH 032	Statistics	4 units
ME 021	Engineering Computing	4 units
ART 003B	Intermediate Painting (Arts/Humanities GE)	4 units
ENGR 045	Introduction to Materials	4 units

Semester_____

Course	Title	Units

Semester_____

Course	Title	Units

Semester_____

Course	Title	Units

4 Year Course Plan:

CATALOG SEARCH

[Search Catalog] 🔍

Advanced Search
Catalog Home

Academic Calendar
Academic Programs
Course Descriptions

Undergraduate Education
General Education
School of Engineering
School of Natural Sciences
School of Social Sciences,
Humanities and Arts
Graduate Studies
Research at UC Merced

About UC Merced
Academic Policies
Undergraduate Admissions
Fees and Expenses
Financial Aid and Scholarships

[2024-2025 Catalog ▾]

CIVIL ENGINEERING, B.S.

⇦ Return to: **Academic Programs**

In addition to adhering to General Education, students must meet the following requirements to receive the B.S. in Civil Engineering at UC Merced.

All students in the School of Engineering, regardless of major, are required to complete all requirements for all majors with a C- or better unless the course is offered as Pass/No Pass only ... res a P grade.

Students in the School of Engineering must repeat a required course ... ng a grade of D+, D, D-, F, Unsatisfactory, or Not Passed, and may do so no more than twic ... e initial enrollment in the class. Students may repeat a course only one time (for a to ... ttempts to earn a C- or better). If students do not complete these requirements, they ... ese courses at another institution or petition the school who hosts the course for a t ... pt. The third attempt is not guaranteed at UC Merced.

Civil Engineering, B.S. Four-Year Course Plan

REQUIRED MAJOR PREPARATION [34 UNITS]

All School of Engineering students are required to complete the following lower-division major preparation courses.

*not all catalog years may have a flow chart

Engineering Academic Advising

School of Engineering

About   Majors   Policies   Registration   Forms   Resources   Placement   Newsletter   See My Advisor

Majors

- GE REQ
- Bioengineering
- Chemical Engineering
- Civil Engineering
- Computer Science and Engineering
- ... Science and Analytics,
- Electrical Engi...
- Environmental Engineering
- Materials Science and Engineering
- Mechanical Engineering
- Undeclared Engineering

Civil Engineering

Civil Engineering

Civil engineering involves the planning, design, construction, and operation of the infrastructure systems and services that support modern civilization; it is the world's oldest engineering profession and a keystone of our society. Responsibilities of the civil engineering profession include the provision of water, power, and transportation systems, clean air and water, and planning and building new communities.

Major Requirements

Catalog Year 2024-2025

Flow Chart - Civil Engineering, B.S.

Catalog Year 2023-2024

Flow Chart - Civil Engineering, B.S.

Catalog Year 2022-2023

B.A. in Data Science & Analytics (DSA)

— 4 DSA Emphasis Tracks —

Environment & Sustainability Analytics

Behavioral Modeling Analytics

Management of Complex Systems

Cognitive & Information Sciences

Select courses from 4 Departments

Economics

Political Science

Business Analytics

Policy Analytics
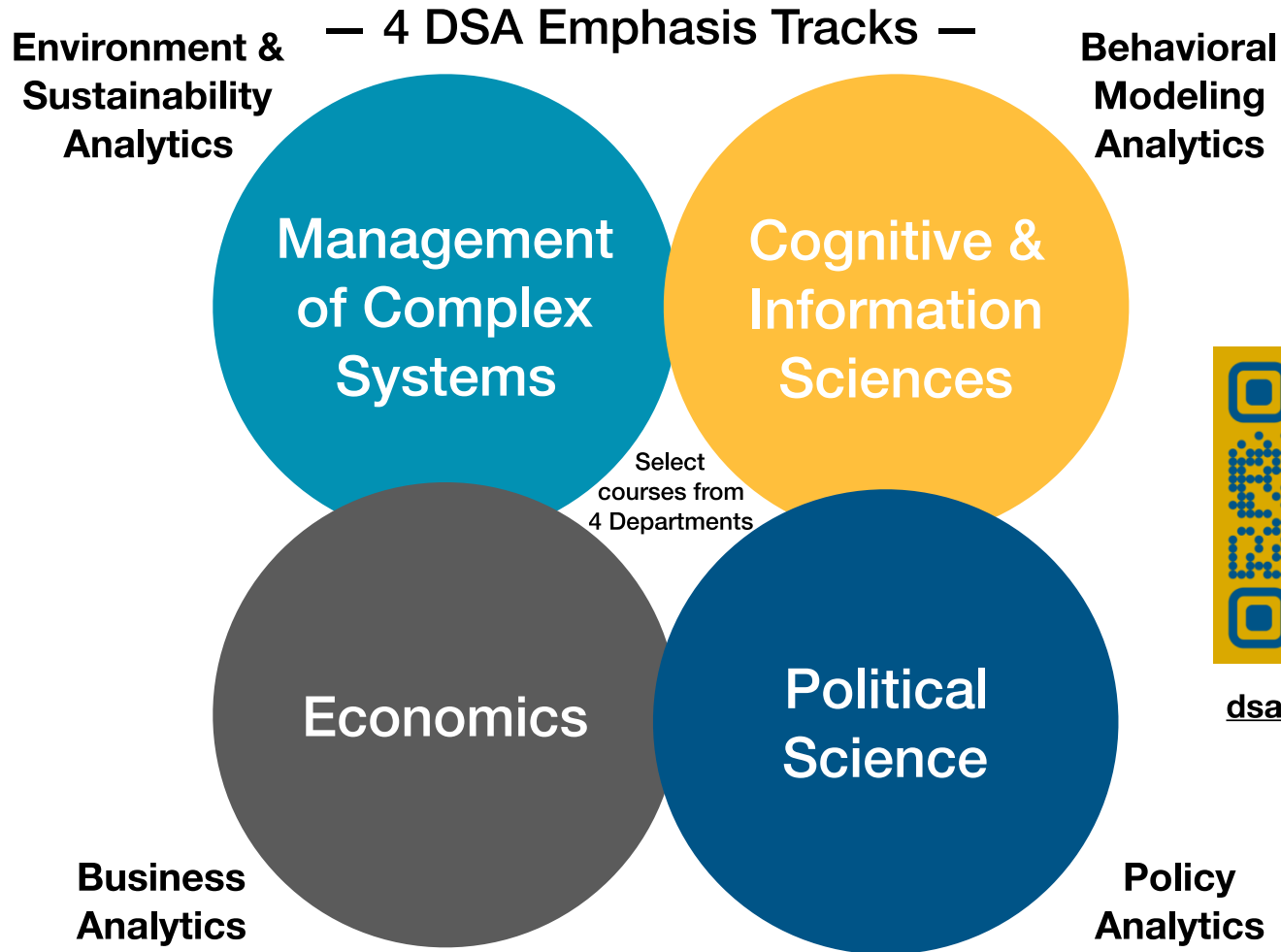
dsa.ucmerced.edu

"Choose your own adventure" major co-delivered by faculty from
4 distinct departments / disciplines / course-bases
— accommodates flexible cross-disciplinary specialization for an

For an increasingly intersectional professional landscape

B.A. in Data Science & Analytics (DSA)

Cross-disciplinary — Experiential Learning — Tech. Workforce Development

Data
People
Economy
Environment
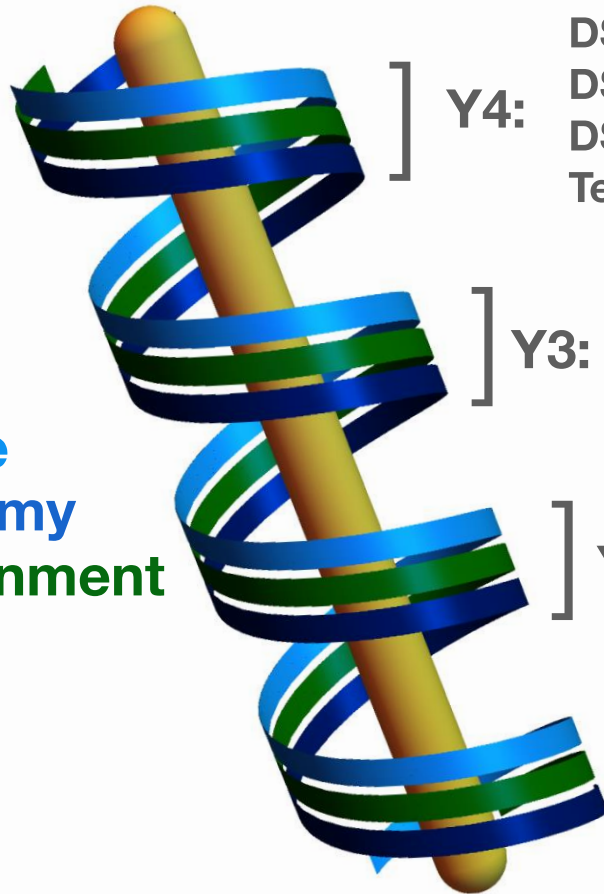
Y4:
DSA 120/121: Capstone
DSA 101: ML & NLP
DSA 102: Interactive Data Visualization
Technical electives from MCS/ECON/CIS/POLI

Y3:
PHIL 123: Technology Ethics
ECON 110: Econometrics
MIST 134: Methods of Data Sci. & Network Sci.
Technical electives from MCS/ECON/CIS/POLI

Y2:
MIST 50: Intro to Entrepreneurship
ECON 10: Statistical Inference
General Education

Y1:
DSA 1: Foundations of DSA
DSA 2: Thinking like a programmer
ECON 1 / COGS 1

Only 17 required courses!!
– accommodates flexible cross-disciplinary specialization

4 DSA Emphasis Tracks:
Awarded upon completion of 3 specific electives:

A. **Business Analytics**
B. **Behavioral Modeling Analytics**
C. **Policy Analytics**
D. **Environment and Sustainability Analytics**

B.A. in Data Science & Analytics (DSA)

DSA electives are **offered by faculty from 4 different departments:**

Cognitive and Information Sciences

- COGS 103: Intro to Neural Networks in Cognitive Science
- COGS 104: Complex Adaptive Systems
- COGS 125: Intro to Artificial Intelligence
- COGS 122: Modeling Social Behavior
- COGS 128: Cognitive Engineering
- COGS 170: Judgement and Decision Making

Economics

- ECON 120: Economics of the Environment and Public Policy
- ECON 145: Health Economics
- ECON 149: Economics of Sports
- ECON 156: Urban and Regional Economics
- ECON 161: International Finance & Trade
- ECON 163: Economics of Investments, Futures, and Options
- ECON 171: Advanced Econometrics

Management of Complex Systems

- MIST 118: Climate Change
- MIST 131: Data Governance for Analytics Projects
- MIST 132: Geographic Information Systems Analysis for Management
- MIST 133: Service Innovation
- MIST 138: Systematic Financial Trading & Analysis
- MIST 175: Information Systems for Management

Political Science

- POLI 112: Public Policy: Analysis, Strategy and Impact
- POLI 120: Voting Behavior, Campaigns and Elections
- POLI 170: Theoretical Models of Politics
- POLI 174: Data Science and Government Affairs
- POLI 175: Advanced Analysis of Political Data

Q: What to expect in upper-division courses?
Q: What undergraduate research experiences available?
Q: How to prepare for internships, co-ops, or graduate school

4 DSA Emphasis Tracks:
Awarded upon completion of 3 specific electives:

A. **Business Analytics**
B. **Behavioral Modeling Analytics**
C. **Policy Analytics**
D. **Environment and Sustainability Analytics**

TIPS for DSA Major

Required/Elective DSA courses offered next semester: Spring 2026

DSA 2; MIST 50, 70, 128, 130, 135, 175, 190

Look at course prerequisite ahead of time Example: Econ 110 requires Econ 10 and Math 21/11

Pay attention to Capstone requirements

Phil 123 currently not offered – we recommend that students take PHIL 122 or MIST 080

DSA requires both courses to be completed ECON 110 and PHIL 123

DSA 120 & 120 is currently under construction – we recommend that students take MIST 195 for now

FIRST YEAR

Fall	Spring
Major *Mathematics Requirement*	Major *Mathematics Requirement*
DSA 001: Foundations of Data Science & Analytics	WRI 010: College Reading and Composition
DSA 002: Thinking Like a Programmer	ECON 001 or COGS 001 or POLI 001 or MIST 001 or PH 001
SPRK 001: Spark Seminar or SPRK 010: Spark Seminar	PHIL 002: Introduction to Ethics or PHIL 003: Contemporary Moral Problems

SECOND YEAR

Fall	Spring
MIST 050: Introduction to Entrepreneurship or MIST 070: Innovation Management	ECON 110: Econometrics or PHIL 123: Technology Ethics
General Education: Lower Division Language	General Education: Area A–Life and Physical Science
General Education: Area A–Life and Physical Science	Free Elective
General Education: Area B–Approaches to Knowledge Social Science, Literary and Textual Analysis, Media and Visual Analysis, Societies and Cultures of the Past	

THIRD YEAR

Fall	Spring
ECON 110: Econometrics	PHIL 123: Technology Ethics
Major *Advanced Data Science and Methods Qauntitative*	Major *Advanced Data Science and Methods Visualization*
General Education: Global Awareness Intellectual Experience	General Education: Upper Division Crossroads
Free Elective	

FOURTH YEAR

Fall	Spring
DSA 120: Capstone I	DSA 121: Capstone II
Major *Technical Elective/Emphasis Requirement or Elective*	Major *Technical Elective/Emphasis Requirement or Elective*
Major *Technical Elective/Emphasis Requirement or Elective*	General Education: Upper Division Writing in the Discipline
Free Elective	Free Elective

Data Science and Analytic (Custom)

LOWER DIVISION MAJOR REQUIREMENTS [32 UNITS]

MATHEMATICS REQUIREMENT [8 UNITS]

Complete two of following courses:

- **MATH 005: Preparatory Calculus** Units: 4
- **MATH 008: Foundations of Quantitative Reasoning** Units: 4
- **MATH 011: Calculus I** Units: 4
- **MATH 012: Calculus II** Units: 4
- **MATH 021: Calculus I for Physical Sciences and Engineering** Units: 4
- **MATH 022: Calculus II for Physical Sciences and Engineering** Units: 4

FOUNDATION REQUIREMENT [8 UNITS]

Complete the following courses:

- **ECON 001: Introduction to Economics** Units: 4 or **COGS 001: Introduction to Cognitive Science** or **POLI 001: Introduction to American Politics** or **MIST 001: Introduction to Management of Innovation, Sustainability & Technology** or **PH 001: Introduction to Public Health**
- **PHIL 002: Introduction to Ethics** Units: 4 or **PHIL 003: Contemporary Moral Problems**

CORE REQUIREMENT [16 UNITS]

Complete the following courses:

- **DSA 001: Foundations of Data Science & Analytics** Units: 4
- **DSA 002: Thinking Like a Programmer** Units: 4
- **ECON 010: Statistical Inference** Units: 4
- **MIST 050: Introduction to Entrepreneurship** Units: 4 or **MIST 070: Innovation Management**

UPPER DIVISION MAJOR REQUIREMENTS [20 UNITS]

PRINCIPLES REQUIREMENT [16 UNITS]

Complete the following courses:

- **ECON 110: Econometrics** Units: 4
- **PHIL 123: Technology Ethics** Units: 4

ADVANCED DATA SCIENCE AND ANALYTICS METHODS: QUANTITATIVE

Complete one of the following courses:

- **MIST 130: Statistical Data Analysis and Optimization in R for Decision Support** Units: 4
- **MIST 134: Methods of Data Science and Network Science** Units: 4

ADVANCED DATA SCIENCE AND ANALYTICS METHODS: QUANTITATIVE

Complete one of the following courses:

- **MIST 130: Statistical Data Analysis and Optimization in R for Decision Support** Units: 4
- **MIST 134: Methods of Data Science and Network Science** Units: 4
- **DSA 101: Machine Learning and Natural Language Processing** Units: 4

ADVANCED DATA SCIENCE AND ANALYTICS METHODS: VISUALIZATION

Complete one of the following courses:

- DSA 102: Interactive Data Visualization
- **ENGR 180: Spatial Analysis and Modeling** Units: 4
- **MIST 132: Geographic Information Systems Analysis for Management** Units: 4
- **MIST 135: Technical Communication and Visualization Skills** Units: 4
- **MIST 190: Special Topics** Units:

CAPSTONE REQUIREMENT [4 UNITS]

Complete the following courses:

- DSA 120: Capstone I
- DSA 121: Capstone II

TECHNICAL ELECTIVES [11-12 UNITS]

Complete any combination of three courses from any of the lists below. For convenience, technical elective courses are grouped according to broad areas where DSA can be applied.

THE ENVIRONMENT AND SUSTAINABILITY

- **BIO 113: Sustainability in the Anthropocene** Units: 4
- **CEE 130: Meteorology and Air Pollution** Units: 4
- **CEE 152: Remote Sensing of the Environment** Units: 4
- **ENGR 141: Environmental Science and Policy** Units: 4
- **ESS 113: Sustainability in the Anthropocene** Units: 4
- **ESS 132: Applied Climatology** Units: 3
- **MIST 116: Applied Climatology** Units: 3
- **MIST 118: Climate Change: Science and Solutions** Units: 3
- **MIST 120: Park and Protected Area Management** Units: 4
- **PHIL 122: Bioethics** Units: 4

POLICY AND DECISION MAKING

- **ECON 120: Economics of the Environment and Public Policy** Units: 4
- **ECON 153: Judgment and Decision Making** Units: 4

DSA Major – Technical Electives

THE ENVIRONMENT AND SUSTAINABILITY

- **BIO 113: Sustainability in the Anthropocene** Units: 4
- **CEE 130: Meteorology and Air Pollution** Units: 4
- **CEE 152: Remote Sensing of the Environment** Units: 4
- **ENGR 141: Environmental Science and Policy** Units: 4
- **ESS 113: Sustainability in the Anthropocene** Units: 4
- **ESS 132: Applied Climatology** Units: 3
- **MIST 116: Applied Climatology** Units: 3
- **MIST 118: Climate Change: Science and Solutions** Units: 3
- **MIST 120: Park and Protected Area Management** Units: 4
- **PHIL 122: Bioethics** Units: 4

POLICY AND DECISION MAKING

- **ECON 120: Economics of the Environment and Public Policy** Units: 4
- **ECON 153: Judgment and Decision Making** Units: 4
- **MIST 131: Data Governance for Analytics Projects** Units: 4
- **POLI 112: Public Policy: Analysis, Strategy, and Impact** Units: 4
- **POLI 120: Voting Behavior, Campaigns, and Elections** Units: 4
- **POLI 170: Theoretical Models of Politics** Units: 4
- **POLI 175: Advanced Analysis of Political Data** Units: 4

UNDERSTANDING AND MODELING PEOPLE

- **MIST 138: Systematic Financial Trading & Analysis** Units: 4
- **CSE 175: Introduction to Artificial Intelligence** Units: 4
- **COGS 104: Complex Adaptive Systems** Units: 4
- **COGS 105: Research Methods for Cognitive Scientists** Units: 4
- **COGS 122: Modeling Social Behavior** Units: 4
- **COGS 128: Cognitive Engineering** Units: 4
- **COGS 130: Cognitive Neuroscience** Units: 4
- **COGS 170: Judgment and Decision Making** Units: 4

ADDITIONAL ELECTIVES

- **CEE 155: Decision Analysis in Management** Units: 4
- **MIST 190: Special Topics** Units:
- Any Advanced Data Science and Analytics Methods elective beyond those that are required

Data Science and Analytic Emphasis – Behavior Model Analytics, Business Analytics, Environment and Sustainability Analytics, and Policy Analytics

BEHAVIORAL MODELING ANALYTICS EMPHASIS [11-12 UNITS]

Complete three of the following courses, either as part of or in addition to the technical elective requirement:

- CSE 175: Introduction to Artificial Intelligence Units: 4 or COGS 125
- COGS 104: Complex Adaptive Systems Units: 4
- COGS 105: Research Methods for Cognitive Scientists Units: 4
- COGS 122: Modeling Social Behavior Units: 4
- COGS 128: Cognitive Engineering Units: 4
- COGS 130: Cognitive Neuroscience Units: 4
- COGS 170: Judgment and Decision Making Units: 4

ENVIRONMENT AND SUSTAINABILITY ANALYTICS EMPHASIS [11-12 UNITS]

Complete three of the following courses, either as part of or in addition to the technical elective requirement:

- ESS 113: Sustainability in the Anthropocene Units: 4 or BIO 113
- MIST 116: Applied Climatology Units: 3 or ESS 132
- MIST 118: Climate Change: Science and Solutions Units: 3
- ENGR 141: Environmental Science and Policy Units: 4
- MIST 132: Geographic Information Systems Analysis for Management Units: 4
- PHIL 122: Bioethics Units: 4
- MIST 120: Park and Protected Area Management Units: 4

BUSINESS ANALYTICS EMPHASIS [11-12 UNITS]

Complete three of the following courses, either as part of or in addition to the technical elective requirement:

- MIST 131: Data Governance for Analytics Projects Units: 4
- MIST 133: Service Innovation Units: 4
- MIST 137: Managing Teamwork Units: 4
- MIST 138: Systematic Financial Trading & Analysis Units: 4
- MIST 150: Service Science Units: 4
- MIST 175: Information Systems for Management Units: 4
- ENGR 155: Engineering Economic Analysis Units: 3
- ECON 006B: Financial Accounting II Units: 4
- ECON 007: Managerial Accounting Units: 4
- ECON 108: Marketing and Consumer Behavior Units: 4

POLICY ANALYTICS EMPHASIS [11-12 UNITS]

Complete three of the following courses, either as part of or in addition to the technical elective requirement:

- ECON 120: Economics of the Environment and Public Policy Units: 4
- ECON 153: Judgment and Decision Making Units: 4
- POLI 112: Public Policy: Analysis, Strategy, and Impact Units: 4
- POLI 120: Voting Behavior, Campaigns, and Elections Units: 4
- POLI 170: Theoretical Models of Politics Units: 4
- POLI 174: Data Science and Government Affairs Units: 4
- POLI 175: Advanced Analysis of Political Data Units: 4

B.A. in **Management**
of **Innovation**, **Sustainability** & **Technology** (**MIST**)

Innovation Management

Sustainability Management

Technology Management

Custom
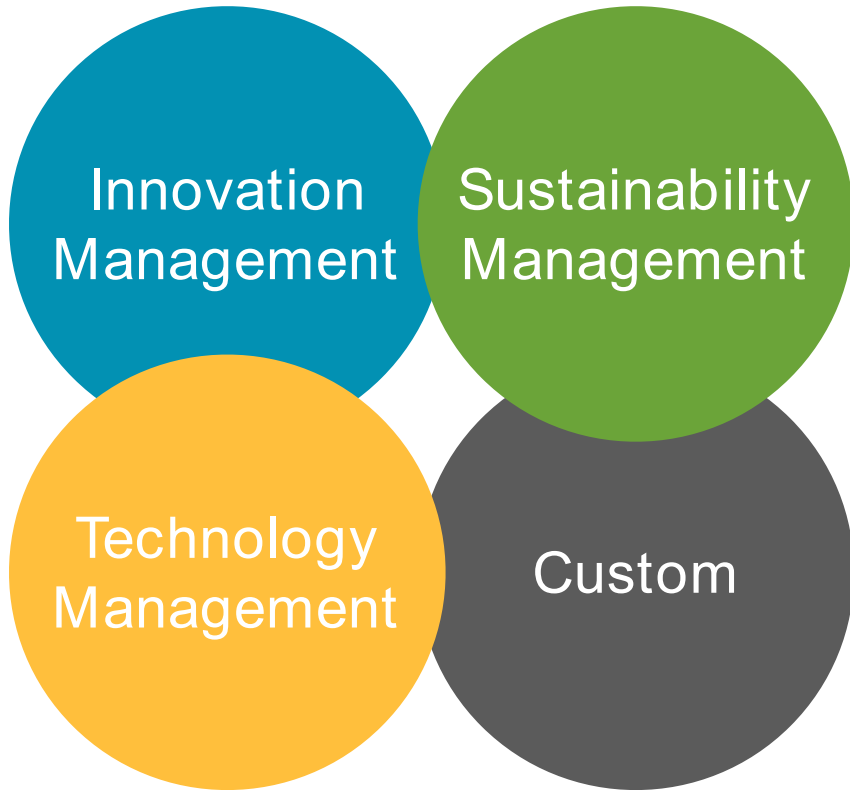
— 4 Emphasis Tracks —

Learn to apply **engineering design principles** to the **management** of integrated **socio**-**environmental**-**technological** **systems**
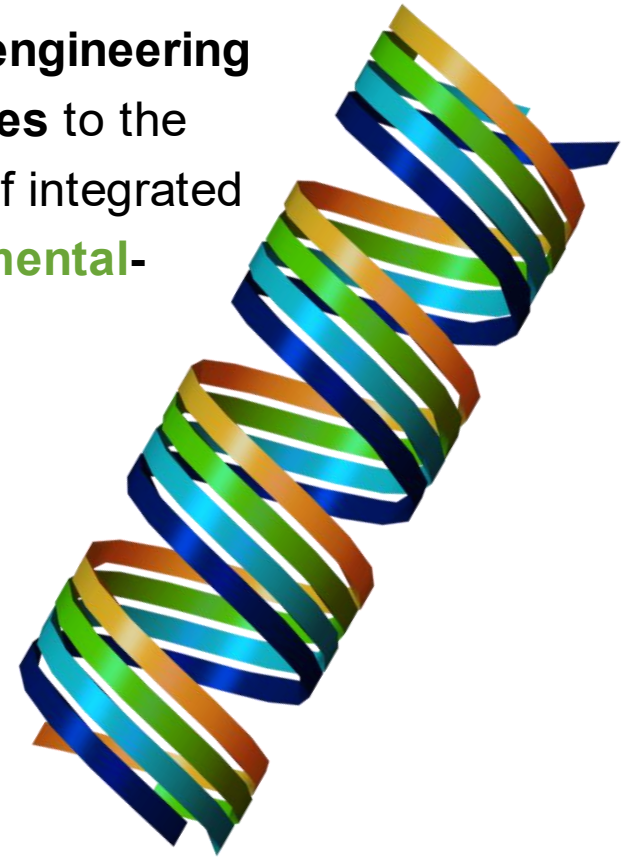
A "Choose your own adventure" major co-delivered by faculty from the School of Engineering / Department of Management of Complex Systems that accommodates flexible cross-disciplinary specialization for an **increasingly intersectional professional landscape**

Management
of Innovation, Sustainability & Technology (MIST)

Cross-disciplinary — Experiential Learning — Tech. Workforce Development

Y4:
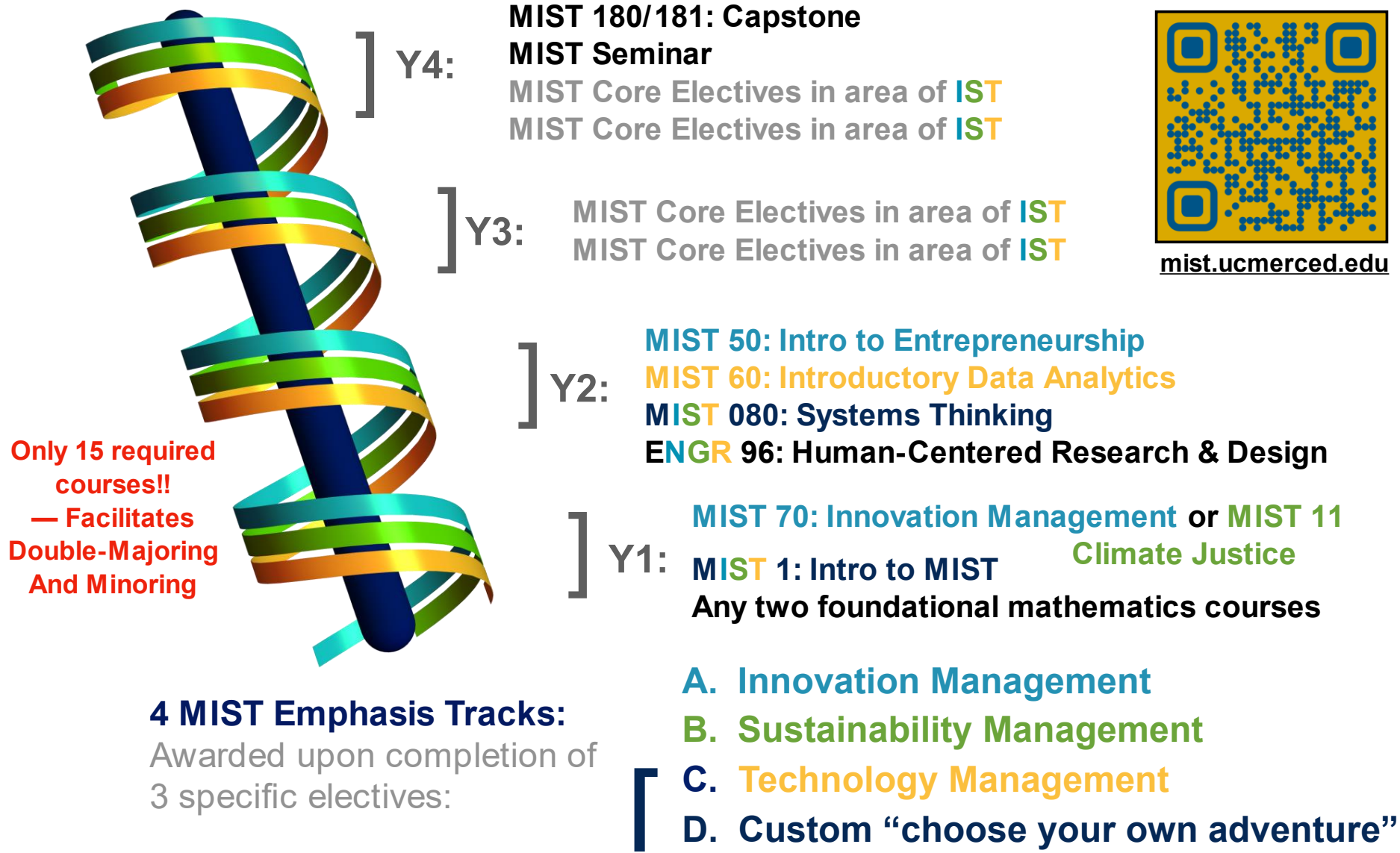**MIST 180/181: Capstone**
MIST Seminar
MIST Core Electives in area of IST
MIST Core Electives in area of IST

Y3:
MIST Core Electives in area of IST
MIST Core Electives in area of IST

mist.ucmerced.edu

Y2:
MIST 50: Intro to Entrepreneurship
MIST 60: Introductory Data Analytics
MIST 080: Systems Thinking
ENGR 96: Human-Centered Research & Design

Only 15 required courses!!
— Facilitates Double-Majoring And Minoring

Y1:
MIST 70: Innovation Management or MIST 11 Climate Justice
MIST 1: Intro to MIST
Any two foundational mathematics courses

4 MIST Emphasis Tracks:
Awarded upon completion of 3 specific electives:

A. **Innovation Management**
B. **Sustainability Management**
C. **Technology Management**
D. **Custom "choose your own adventure"**

Management
of Innovation, Sustainability & Technology (MIST)

Management Coursework

- MIST 001: Intro to MIST
- MIST SPARK: Ethnography & Innovation
- MIST SPARK: Entrepreneurship LLC
- MIST 050: Intro Entrepreneurship
- MIST 070: Innovation Management
- MIST 090: Topics in Management
- MIST 137: Managing Teamwork

Systems Science Coursework

- MIST 075: Information Systems
- MIST 080: Systems Thinking
- MIST SPARK: Science of Science
- MIST SPARK: Cybersecurity & Data Privacy
- MIST 132: Geographic Information Systems Analysis for Management
- MIST 133: Service Innovation
- MIST 128: Cognitive Engineering
- MIST 136: Retail Management
- MIST 150: Service Science
- MIST 175: Inform. Systems for Mgmt.

Data Analytics Coursework

- MIST 060: Intro Data Analytics
- MIST 130: Statistical Data Analysis and Optimization
- MIST 131: Data Governance for Analytics Projects
- MIST 134: Methods Data Science and Network Science
- MIST 135: Technical Communication and Visualization
- MIST 138: Systematic Financial Trading & Analysis
- DSA 101: Machine Learning and NLP
- DSA 102: Interactive Data Collection & Visualization

Environmental Management Coursework

- MIST 011: Climate Justice
- MIST SPARK: Living with Wildfire
- MIST SPARK: National Parks & Landscapes
- MIST 120: Park and Protected Area Management
- MIST 116: Applied Climatology
- MIST 118: Climate Change: Science and Solutions
- MIST 164: Energy Policy

Q: What to expect in upper-division courses?
Q: What undergraduate research experiences available?
Q: How to prepare for internships, co-ops, or graduate school

TIPS for MIST Major

Required/Elective MIST courses offered next semester: Spring 2026

MIST 50, 70, 128, 130, 135, 175, 190 (x2) ENGR 96

Plan ahead as some are offered Fall or Spring only

FIRST YEAR	
Fall	**Spring**
SPRK 001: Spark Seminar or SPRK 010: Spark Seminar	WRI 010: College Reading and Composition
Major *Mathematics Requirement*	General Education: Area B–Approaches to Knowledge Social Science, Literary and Textual Analysis, Media and Visual Analysis, Societies and Cultures of the Past
MIST 001: Introduction to Management of Innovation, Sustainability & Technology	General Education: Lower Division Language
Free Elective	Free Elective

SECOND YEAR	
Fall	**Spring**
Major *MIST Fundamentals Requirement*	Major *MIST Emphasis Requirement*
Major *Introductory Data Analytics Requirement*	Major *MIST Emphasis Requirement*
ENGR 096: Human-Centered Research and Design	General Education: Area B–Approaches to Knowledge Social Science, Literary and Textual Analysis, Media and Visual Analysis, Societies and Cultures of the Past
Free Elective	Free Elective

THIRD YEAR	
Fall	**Spring**
Major *MIST Emphasis Requirement*	Major *MIST Emphasis Requirement*
Major *MIST Emphasis Requirement*	Major *MIST Emphasis Requirement*
General Education: Area B–Approaches to Knowledge Social Science, Literary and Textual Analysis, Media and Visual Analysis, Societies and Cultures of the Past	General Education: Area A–Life and Physical Science
Free Elective	Free Elective

FOURTH YEAR	
Fall	**Spring**
Major *MIST Culminating Experience*	Major *MIST Culminating Experience*
General Education: Area A–Life and Physical Science	Major *MIST Culminating Experience*
Free Elective	Free Elective
Free Elective	Free Elective

Management of Innovation, Sustainability and Technology Major (Custom)

REQUIRED MAJOR PREPARATION [14 UNITS]

MATHEMATICS REQUIREMENT [4 UNITS]

Complete one of the following courses:

- **MATH 005: Preparatory Calculus** Units: 4
- **MATH 011: Calculus I** Units: 4
- **MATH 021: Calculus I for Physical Sciences and Engineering** Units: 4

INTRODUCTORY DATA ANALYTICS REQUIREMENT [4 UNITS]

Complete one of the following courses:

- **MIST 060: Introductory Data Analytics** Units: 4
- **DSA 001: Foundations of Data Science & Analytics** Units: 4

ADDITIONAL MAJOR PREPARATION [6 UNITS]

Complete the following courses:

- **MIST 001: Introduction to Management of Innovation, Sustainability & Technology** Units: 4
- **ENGR 096: Human-Centered Research and Design** Units: 2

MIST FUNDAMENTALS [4 UNITS]

Complete one of the following courses in addition to your emphasis requirements:

- **ESS 002: Sustainability Science** Units: 4
- **ESS 043: Biodiversity and Conservation** Units: 4
- **ENG 001: Introduction to Environmental Communications** Units: 4 or **EH 001**
- **MIST 011: Climate Justice** Units: 4 or **ESS 011**
- **MIST 040: Success Through Interpersonal Social Skills** Units: 4
- **MIST 050: Introduction to Entrepreneurship** Units: 4
- **MIST 070: Innovation Management** Units: 4

CULMINATING EXPERIENCE [6 UNITS]

Complete the following courses:

- * MIST 180: Capstone 1 (2 Units)
- * MIST 181: Capstone 2 (2 Units)
- * MIST 182: MIST Seminar (2 Units)

CUSTOM EMPHASIS REQUIREMENTS [23-24 UNITS]

MIST FUNDAMENTALS [8 UNITS]

Complete two of the following MIST Fundamentals courses:

- **ESS 002: Sustainability Science** Units: 4
- **ENG 001: Introduction to Environmental Communications** Units: 4 or **EH 001**
- **MIST 011: Climate Justice** Units: 4 or **ESS 011**
- **MIST 050: Introduction to Entrepreneurship** Units: 4
- **MIST 070: Innovation Management** Units: 4
- **ENVE 020: Introduction to Environmental Science and Technology** Units: 4

MIST CORE ELECTIVE REQUIREMENT [15-16 UNITS]

Complete four of the following courses:

- **MIST 116: Applied Climatology** Units: 3
- **MIST 118: Climate Change: Science and Solutions** Units: 3
- **MIST 120: Park and Protected Area Management** Units: 4
- **MIST 128: Cognitive Engineering** Units: 4
- **MIST 130: Statistical Data Analysis and Optimization in R for Decision Support** Units: 4
- **MIST 131: Data Governance for Analytics Projects** Units: 4
- **MIST 132: Geographic Information Systems Analysis for Management** Units: 4
- **MIST 133: Service Innovation** Units: 4
- **MIST 134: Methods of Data Science and Network Science** Units: 4
- **MIST 135: Technical Communication and Visualization Skills** Units: 4
- **MIST 136: Retailing Management** Units: 4
- **MIST 137: Managing Teamwork** Units: 4
- **MIST 138: Systematic Financial Trading & Analysis** Units: 4
- **MIST 150: Service Science** Units: 4
- **MIST 164: Energy Policy** Units: 4
- **MIST 190: Special Topics** Units:
- **CEE 155: Decision Analysis in Management** Units: 4
- **COGS 104: Complex Adaptive Systems** Units: 4
- **CSE 015: Discrete Mathematics** Units: 4
- **CSE 100: Algorithm Design and Analysis** Units: 4
- **DSA 002: Thinking Like a Programmer** Units: 4
- **ECON 005: Introduction to Business and Finance** Units: 4
- **ECON 007: Managerial Accounting** Units: 4
- **ECON 110: Econometrics** Units: 4
- **ENGR 155: Engineering Economic Analysis** Units: 3
- **ENGR 180: Spatial Analysis and Modeling** Units: 4

Management of Innovation, Sustainability and Technology Emphasis – Innovation Management, Sustainability Management, Technology Management

INNOVATION MANAGEMENT EMPHASIS REQUIREMENTS [23-24 UNITS]

MIST FUNDAMENTALS [8 UNITS]

Complete two of the following MIST Fundamentals courses:

- **MIST 050: Introduction to Entrepreneurship** Units: 4
- **MIST 070: Innovation Management** Units: 4

MIST CORE ELECTIVE REQUIREMENT [15-16 UNITS]

Complete four of the following courses:

- **MIST 120: Park and Protected Area Management** Units
- **MIST 128: Cognitive Engineering** Units: 4
- **MIST 131: Data Governance for Analytics Projects** Unit
- **MIST 133: Service Innovation** Units: 4
- **MIST 135: Technical Communication and Visualization**
- **MIST 136: Retailing Management** Units: 4
- **MIST 137: Managing Teamwork** Units: 4
- **MIST 150: Service Science** Units: 4
- **MIST 175: Information Systems for Management** Units
- **ECON 005: Introduction to Business and Finance** Units
- **ECON 108: Marketing and Consumer Behavior** Units: 4
- **PHIL 123: Technology Ethics** Units: 4

SUSTAINABILITY MANAGEMENT EMPHASIS REQUIREMENTS [23-24 UNITS]

MIST FUNDAMENTALS [8 UNITS]

Complete two of the following MIST Fundamental

- **ESS 002: Sustainability Science** Units: 4
- **ESS 043: Biodiversity and Conservation** Uni
- **MIST 011: Climate Justice** Units: 4 or **ESS 011**
- **ENG 001: Introduction to Environmental Co**
- **ENVE 020: Introduction to Environmental S**

MIST CORE ELECTIVE REQUIREMENT [15-16 UN

Complete four of the following courses:

- **ECON 005: Introduction to Business and Fir**
- **ECON 108: Marketing and Consumer Behav**
- **ENG 130: Writing to Save the Planet** Units: 4
- **ESS 015: Weather, Climate, and the Enviror**
- **ESS 034: Introduction to Marine Science** Un
- **ESS 113: Sustainability in the Anthropocen**
- **MIST 116: Applied Climatology** Units: 3
- **MIST 118: Climate Change: Science and Solu**
- **MIST 120: Park and Protected Area Manage**
- **MIST 128: Cognitive Engineering** Units: 4
- **MIST 135: Technical Communication and Vi**
- **MIST 164: Energy Policy** Units: 4
- **PHIL 123: Technology Ethics** Units: 4

TECHNOLOGY MANAGEMENT EMPHASIS REQUIREMENTS [23-24 UNITS]

MIST FUNDAMENTALS [8 UNITS]

Complete two of the following MIST Fundamentals courses:

- **CSE 030: Data Structures** Units: 4
- **ENVE 020: Introduction to Environmental Science and Technology** Units: 4

MIST CORE ELECTIVE REQUIREMENT [15-16 UNITS]

Complete four of the following courses:

- **MIST 120: Park and Protected Area Management** Units: 4
- **MIST 130: Statistical Data Analysis and Optimization in R for Decision Support** Units: 4
- **MIST 131: Data Governance for Analytics Projects** Units: 4
- **MIST 132: Geographic Information Systems Analysis for Management** Units: 4
- **MIST 133: Service Innovation** Units: 4
- **MIST 134: Methods of Data Science and Network Science** Units: 4
- **MIST 136: Retailing Management** Units: 4
- **MIST 137: Managing Teamwork** Units: 4
- **MIST 138: Systematic Financial Trading & Analysis** Units: 4
- **MIST 150: Service Science** Units: 4
- **MIST 175: Information Systems for Management** Units: 4
- **COGS 104: Complex Adaptive Systems** Units: 4
- **CSE 015: Discrete Mathematics** Units: 4
- **CSE 100: Algorithm Design and Analysis** Units: 4
- **CEE 155: Decision Analysis in Management** Units: 4
- **ECON 005: Introduction to Business and Finance** Units: 4
- **ECON 006B: Financial Accounting II** Units: 4
- **ECON 007: Managerial Accounting** Units: 4
- **ECON 110: Econometrics** Units: 4
- **ENGR 155: Engineering Economic Analysis** Units: 3
- **ENGR 180: Spatial Analysis and Modeling** Units: 4

# General Education - Social Science, Arts & Humanities

- DSA major's foundation requires ECON 1, COGS 1, POLI 1, MIST 1, PH 1, PHIL 2 or PHIL 3 to fulfill its requirement, by completing those specific courses:

  - ECON 001 will fulfill Social Science

  - PHIL 002 will fulfill the Literary and Textual Analysis

- MIST major has MIST 50, ESS 002, ESS 43, and more in the MIST Fundamentals:

  - MIST 50 will fulfill Social Science

  - ESS 002 will fulfill the Life Science or Physical Science

Upper Division Common Course Requirement

- Data Science & Analytics (DSA):
    - DSA 120 & 121 are currently under construction
    - Take MIST 195 to fulfill Capstone and the Culminating Experience
- Management of Inn. Sustain. & Tech (MIST):
    - MIST 180 & MIST 181

Things to Remember

- **Courses and their requirements can and do change (pre-reqs), so make sure you communicate with your advisor regularly and check for SOEADVISING@UCMERCED.EDU emails**

- ***Full-Time Status*: Students must enroll in <u>at least</u> 12 units each semester**

- ***Journey to 30:* Students must enroll in 15 units in a semester to meet graduation on time**
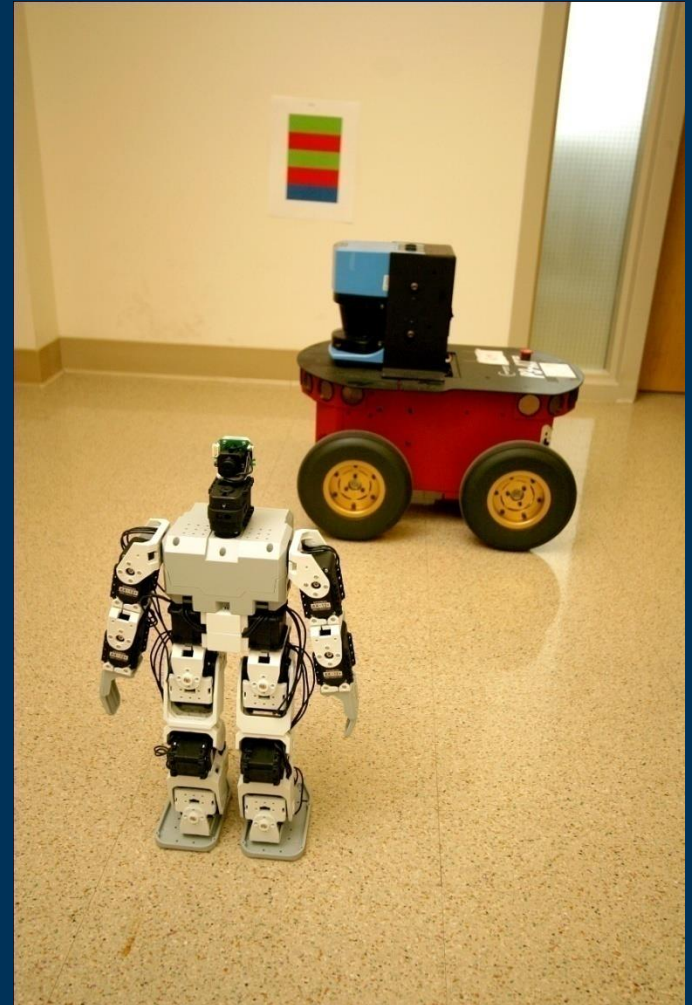
Normal Progress Policy

Student progress is reviewed every Fall term by the School of Engineering. If a student is not meeting the normal progress standard, the school may place a hold on the student's academic record, which can prevent registration for future terms.

Normal progress includes:
- Maintaining good academic standing
- Successfully completing required coursework

- Enrolling in course(s) needed to complete their degree
- Enrolling in the appropriate number of credits

Taking a Class During Summer

- Taking Classes at UC Merced
  - Enroll in at least 6 units to apply for summer fin aid

- Taking classes at another institution
  - Make sure course is equivalent to UC Merced course by using transferology.com or ASSIST
  - Apply and enroll in course
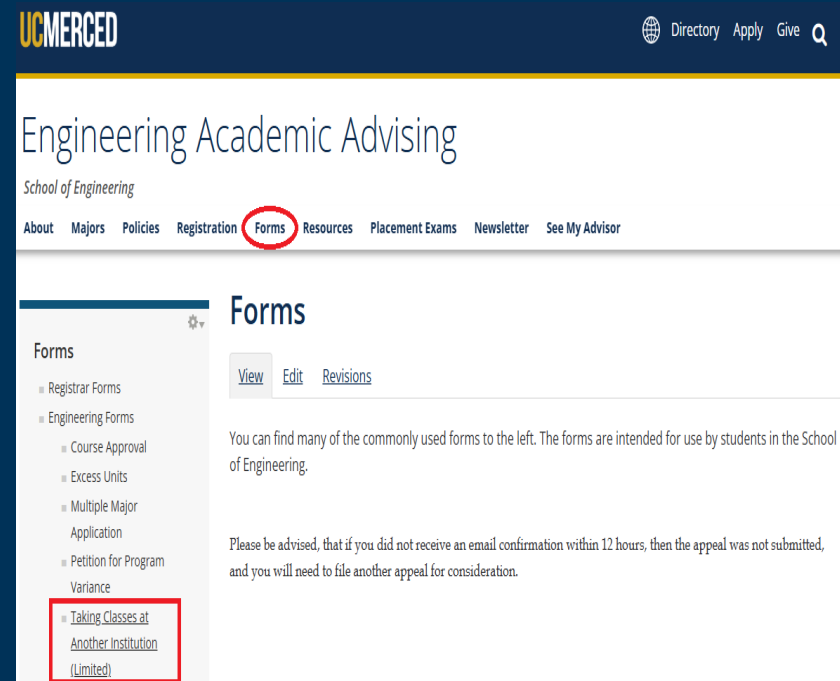
Send screen shot to academic advisor and ask for temporary override for Fall Courses

Can I Take a Course Outside of UC Merced? Fall/Spring

You have to ask for permission before enrolling...or you won't get credit...

- You can take a course through

  - UC Online

  - Merced College (Intersegmental Cross Enrollment Program)

  - any other Community College

- You must have 12 units within your home campus.

- Requirement: "Taking Classes at Another Institution" form through our website.

We will not know you are enrolled unless you fill out the form and ask us for temporary overrides to enroll in next term courses

Take a Course Outside UC Merced

- All Temporary overrides are removed the Monday before the semester begins
  - This date is about 2 weeks before courses start

Make sure to send me proof of passing course to advisor as soon as available.

Can I change my major, add a Minor or Double Major?

Policies: https://engr-advising.ucmerced.edu/policies/declaration-major

- Yes, you can do this now…

There are some majors in which you can't double major

Example: ME and MSE
  Double major: only 12 units can be shared
  Minor: only 4 units can be shared

How to Declare?
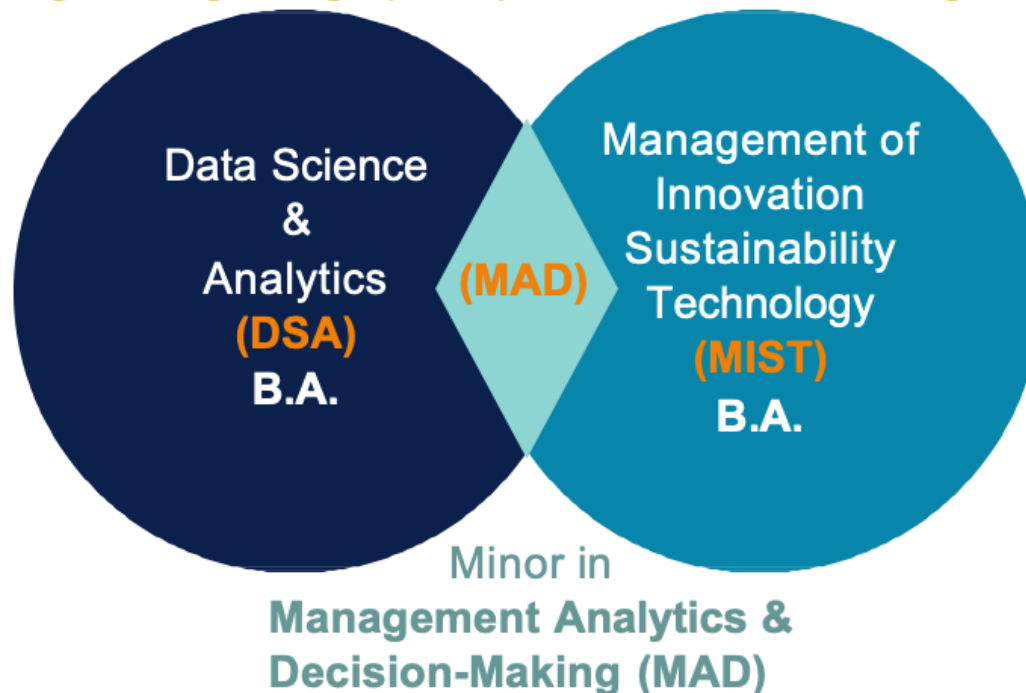 Go to the Office of the Registrar website – Forms

JumpStart 3rd year

- Attend/view one workshop hosted by the School of Engineering (this one)

- Attend one career-related event

- Complete the webform where you will:

  - Answer questions related to career event

  - Answer questions related to this presentation

  - Plan courses two terms [Fall/Spring] graduation plan. (Summer is optional)

QUESTIONS?

Two SoE Majors in Social Engineering
— applying engineering design principles to socio-technological systems —

Data Science & Analytics (DSA) B.A.

(MAD)

Management of Innovation Sustainability Technology (MIST) B.A.

Minor in
Management Analytics & Decision-Making (MAD)

dsa.ucmerced.edu

mist.ucmerced.edu

Department of Management of Complex Systems
— mcs.ucmeced.edu—