

ASU specialization sheet for graduate programs

This list shows master’s degrees at ASU with specializations. Some programs have additional requirements such as selection of multiple specializations. Follow the instructions below the program name. Your admissions advisor will support if applicable.

1	Aerospace Engineering, MS	2
2	Art, MFA	2
3	Astrophysics and Astronomy, MS	2
4	Biology, MS	3
5	Biology (Biology and Society), MS	3
6	Business Analytics, MS	3
7	Civil, Environmental, and Sustainable Engineering, MS	3
8	Computer Engineering (Computer Systems), MS	3
9	Computer Science, MS	4
10	Computer Science (Arts, Media, and Engineering), MS	4
11	Computer Science (Big Data Systems), MS	4
12	Computer Science (Biomedical Informatics), MS	5
13	Computer Science (Cybersecurity), MS	5
14	Construction Management and Technology, MS	5
15	English, MA	5
16	Exploration Systems Design (Systems Engineering), MS	5
17	Finance, MS	6
18	Geography, MA	6
19	Geological Sciences, MS	7
20	Global Health, MA	7
21	History, MA	7
22	Industrial Engineering, MS	8
23	Information Systems Management, MS	8
24	Information Technology, MS	8
25	Justice Studies, MS	8
26	Materials Science and Engineering, MS	8
27	Mathematics, MA	8
28	Mechanical Engineering, MS	9
29	Microbiology, MS	9
30	Molecular and Cellular Biology, MS	9
31	Museum Studies, MA	9
32	Performance (Conducting), MM	10

33	Performance (Voice, Music Theatre, Opera), MM	10
34	Performance Pedagogy, MM	10
35	Music Performance, MM	11
36	Plant Biology and Conservation, MS.....	11
37	Political Science, MA.....	11
38	Religious Studies, MA	12
39	Spanish, MA	12
40	Sustainability, (MA/MS).....	12
41	Sustainability Solutions, MSUS.....	12
42	Urban and Environmental Planning, MUEP.....	13

1 Aerospace Engineering, MS

Choose 1st, 2nd, and 3rd preference specializations:

- Aerodynamics and Flow Control
- CAD/CAM/Design Computing Computational Modelling
- Energy/Environmental Systems
- Fluid Mechanics
- Heat Transfer

2 Art, MFA

Choose 1st and 2nd preference areas of focus:

- Ceramics
- Drawing and Painting
- Fibers
- Intermedia
- Metals
- Photography
- Printmaking
- Sculpture
- Wood

3 Astrophysics and Astronomy, MS

Choose 1st, 2nd and 3rd preference specializations:

- Astronomical instrumentation
- Cosmology
- Dark Matter/Dark Energy
- Exoplanets
- Extragalactic astronomy
- Galactic astronomy
- High Energy Astrophysics
- Infrared Astronomy
- Interstellar Medium
- Laboratory astrophysics
- Nucleosynthesis
- Observational astronomy
- Planetary materials
- Radio astronomy
- Space physics/heliophysics
- Spectroscopy

- Star formation
- Stellar evolution
- Theoretical/Computational Astrophysics

4 Biology, MS

Choose 1st and 2nd preference research interests:

- Animal Behavior and Sociobiology
- Bioenergy
- Biogeochemistry
- Ecology, Conservation and Environmental Sciences
- Evolution and Biodiversity
- Genetics, Cellular and Developmental Biology
- History and Philosophy of Science
- Microbes
- Neurobiology and Physiology
- Science Education

5 Biology (Biology and Society), MS

Option to choose 1st and 2nd preference research interests:

- Animal Behavior and Sociobiology
- Bioenergy
- Biogeochemistry
- Ecology, Conservation and Environmental Sciences
- Evolution and Biodiversity
- Genetics, Cellular and Developmental Biology
- History and Philosophy of Science
- Microbes
- Neurobiology and Physiology

6 Business Analytics, MS

Confirm if you will pursue an optional specialization (includes a third semester and internship opportunity) – and if so, choose one from the list below:

- Cloud Computing and Tech Consulting
- Fintech
- Marketing Analytics
- Supply Chain Analytics
- No, I will not pursue an optional third semester specialization

7 Civil, Environmental, and Sustainable Engineering, MS

Choose one specialization:

- Environmental
- Geotechnical/Geoenvironmental
- Hydrosystems Engineering
- Structures
- Sustainability Engineering
- Transportation

8 Computer Engineering (Computer Systems), MS

Choose one specialization:

- Autonomous Systems & Robotics

- Communications and Networks
- Distributed, Dependable, Secure Systems
- Multimedia and Signal Processing
- VLSI, Architecture & Embedded Systems

9 Computer Science, MS

Choose one specialization:

- Algorithms/Theoretical Computer Science
- Artificial Intelligence
- Arts, Media, and Engineering (AME)
- Bioinformatics
- Computer Aided Geometric Design
- Computer Architecture/VLSI Design
- Computer Graphics
- Databases/Data Mining
- Distribution Systems and Middleware
- Embedded Systems
- Modelling and Simulation
- Multi-media Systems
- Networks
- Operating Systems
- Security and Information Assurance
- Software Engineering

10 Computer Science (Arts, Media, and Engineering), MS

Choose one specialization:

- Biofeedback & Interaction and Feedback
- Biofeedback & Perception and Modeling
- Biofeedback and Sensing
- Education & Interaction and Feedback
- Education & Perception and Modeling
- Education & Sensing
- Interactive Arts & Interaction and Feedback
- Interactive Arts & Perception and Modeling
- Interactive Arts & Sensing
- Situated Communications & Interaction and Feedback
- Situated Communications & Perception and Modeling
- Situated Communications & Sensing

11 Computer Science (Big Data Systems), MS

Choose one specialization:

- Algorithms/Theoretical Computer Science
- Artificial Intelligence
- Arts, Media, and Engineering (AME)
- Bioinformatics
- Computer Aided Geometric Design
- Computer Architecture/VLSI Design
- Computer Graphics
- Databases/Data Mining
- Distribution Systems and Middleware
- Embedded Systems
- Modeling and Simulation
- Multi-media Systems

- Networks
- Operating Systems
- Security and Information Assurance
- Software Engineering

12 Computer Science (Biomedical Informatics), MS

Choose one specialization:

- Algorithms/Theoretical Computer Science
- Artificial Intelligence
- Arts, Media, and Engineering (AME)

13 Computer Science (Cybersecurity), MS

Choose one specialization:

- Algorithms/Theoretical Computer Science
- Artificial Intelligence
- Arts, Media, and Engineering (AME)
- Bioinformatics
- Computer Aided Geometric Design
- Computer Architecture/VLSI Design
- Computer Graphics
- Databases/Data Mining
- Distribution Systems and Middleware
- Embedded Systems
- Modeling and Simulation
- Multi-media Systems
- Networks
- Operating Systems
- Security and Information Assurance
- Software Engineering

14 Construction Management and Technology, MS

Choose one specialization:

- Construction Management
- Facility Management

15 English, MA

Choose one specialization:

- Comparative Literature
- Literature
- Writing, Rhetorics, and Literacies

16 Exploration Systems Design (Systems Engineering), MS

Choose 1st, 2nd and 3rd preference specializations:

- Autonomous vehicles
- Cosmology instrumentation
- Cryogenics
- CubeSat spacecraft
- Detectors
- Exoplanet instrumentation
- High Altitude Ballooning

- Imaging
- Infrared Band
- Mechanical Design
- Optical Design
- Readout electronics & controllers
- Remote sensing and Mapping
- Space mission design
- Spectroscopy
- Systems Engineering
- Terahertz Band
- Thermal Design
- Ultraviolet Band
- Visible Band

17 Finance, MS

Confirm whether you will pursue an optional specialization (includes a third semester and internship opportunity):

- Analytical Methods
- No, I do not plan on pursuing an optional specialization

18 Geography, MA

Choose one specialization:

- Alpine Climatology Biochemistry
- Applied Meteorology
- Atmospheric Dynamics
- Biogeography
- Cartography
- Climate Change
- Climatology
- Cultural & Political Ecology
- Dating Methods
- Development/Citizen Participation/Civil Society
- Dynamic & Synoptic Meteorology
- Earth-Surfaces Processes
- Energy
- Energy Landscapes
- Environmental Modeling
- Environmental Systems
- Ethnic Landscapes
- Ethnicity
- Fluvial Geomorphology
- GIScience
- Global Environmental Change
- Historical Climates
- Housing Demography
- Human Impacts
- Hydroclimatology
- Land Use & Land Use Change
- Landscape Mechanics
- Latin America and the Southwestern United States
- Mesoscale Climate Modification
- Mexican-American Borderlands
- Migration
- Natural Resources and Environment
- Nuclear Power

- Physical Microclimatology
- Quaternary Studies
- Quaternary Geomorphology
- Regional Economic Development
- Remote Sensing
- Sediment Transport
- Spatial Analysis Methods
- Spatial Statistics
- Surface Water Processes
- Transportation
- Transportation Mathematical Models
- Tropical Agriculture
- Urban Studies
- Weathering

19 Geological Sciences, MS

Choose 1st, 2nd and 3rd preference specializations:

- Astrobiology
- Biogeochemistry
- Geobiology
- Geochemistry
- Geodynamics
- Geomorphology
- Geophysics
- Geoscience education
- Hydrology
- Isotope geochemistry
- Meteorite and cosmochemistry
- Mineral physics
- Mineralogy and petrology
- Planetary geology
- Remote sensing
- Seismology
- Surface processes
- Tectonics
- Volcanology

20 Global Health, MA

Choose one area of research cluster:

- Childbirth complications
- Climate change related disease
- Neglected, re-emerging, and new infections diseases
- Obesity/food insecurity as conditions of poverty

21 History, MA

Select primary area of study:

- East Asia/Southeast Asia
- Europe
- Global History
- North America
- Public History

22 Industrial Engineering, MS

Choose one specialization:

- Industrial Statistics
- Information and Management Systems
- Operations Research
- Production Systems

23 Information Systems Management, MS

Choose one specialization:

- Cloud
- Data Analytics
- Technology Consulting
- To be determined

24 Information Technology, MS

Indicate intended focus area:

- Information Systems Management
- Information Technology Security

25 Justice Studies, MS

Choose one specialization:

- Citizenship, Migration, and Human Rights
- Globalization, Sustainability, and Economic Justice
- Law, Policy, and Social Change
- Media, Technology and Culture
- Social Identities and Communities

26 Materials Science and Engineering, MS

Choose 1st and 2nd preference specializations:

- Applied NanoBioscience
- Computational Modeling
- Electronic Materials
- Energy
- Flexible Display
- Microscopy (TEM and Scanning Probes)
- Nanoelectronics
- Nanomechanics
- Organic/Inorganic Semiconductor Materials
- Photonics

27 Mathematics, MA

Choose one specialization:

- Analysis
- Chaos/Linear Dynamics
- Computational Math
- Control/Systems Theory
- Differential Equations/Math Bio
- Discrete Mathematics
- Math Education

- Number Theory/Algebra
- Statistics/Probability
- Undecided

28 Mechanical Engineering, MS

Choose 1st, 2nd and 3rd preference specializations:

- Aerodynamics and Flow Control
- CAD/CAM/Design Computing
- Computational Modeling
- Energy/Environmental Systems
- Fluid Mechanics
- Heat Transfer
- Manufacturing Engineering
- Mechatronics/Robotics
- Nanotechnology/MEMS
- Propulsion/Combustion
- Solid Mechanics
- Space Systems
- Structures and Vibrations
- System Dynamics and Control

29 Microbiology, MS

Choose 1st and 2nd preference research interests:

- Animal Behavior and Sociobiology
- Bioenergy
- Biogeochemistry
- Ecology, Conservation and Environmental Sciences
- Evolution and Biodiversity
- Genetics, Cellular and Developmental Biology
- History and Philosophy of Science
- Microbes
- Neurobiology and Physiology

30 Molecular and Cellular Biology, MS

Choose 1st and 2nd preference research interests:

- Animal Behavior and Sociobiology
- Bioenergy
- Biogeochemistry
- Ecology, Conservation and Environmental Sciences
- Evolution and Biodiversity
- Genetics, Cellular and Developmental Biology
- History and Philosophy of Science
- Microbes
- Neurobiology and Physiology

31 Museum Studies, MA

- Anthropology
- Art History
- Public History
-

32 Performance (Conducting), MM

Choose one area of interest:

- Orchestra
- Wind Band
- Music Theatre
- Choral

33 Performance (Voice, Music Theatre, Opera), MM

Indicate preferred emphasis:

- Music Theatre Voice – Mezzo-Soprano
- Music Theatre Voice – Alto
- Music Theatre Voice- Baritone
- Music Theatre Voice – Bass
- Music Theatre Voice – Soprano
- Music Theatre Voice – Tenor
- Music Theatre/Opera Direction
- Opera Voice – Alto
- Opera Voice – Baritone
- Opera Voice – Bass
- Opera Voice – Mezzo-Soprano
- Opera Voice – Soprano
- Opera Voice – Tenor

34 Performance Pedagogy, MM

Indicate instrument or voice type:

- Bassoon
- Cello
- Clarinet
- Double Bass
- Euphonium
- Flute
- Guitar
- Harp
- Horn
- Oboe
- Organ
- Percussion
- Piano – Pedagogy
- Saxophone
- Trombone – Bass
- Trombone – Tenor
- Trumpet
- Tuba
- Viola
- Violin
- Voice – Alto
- Voice – Baritone
- Voice – Bass
- Voice – Mezzo-Soprano
- Voice – Soprano
- Voice - Tenor

35 Music Performance, MM

Indicate instrument or voice type:

- Bassoon
- Cello
- Clarinet
- Double Bass
- Euphonium
- Flute
- Guitar
- Harp
- Horn
- Jazz Double Bass
- Jazz Guitar
- Jazz Percussion
- Jazz Piano
- Jazz Saxophone
- Jazz Trombone
- Jazz Trumpet
- Oboe
- Organ
- Percussion
- Piano
- Saxophone
- Trombone – Bass
- Trombone – Tenor
- Trumpet
- Tuba
- Viola
- Violin
- Voice – Alto
- Voice – Baritone
- Voice – Bass
- Voice – Mezzo-Soprano
- Voice – Soprano
- Voice – Tenor

36 Plant Biology and Conservation, MS

Choose 1st and 2nd preference research interests:

- Animal Behavior and Sociobiology
- Bioenergy
- Biogeochemistry
- Ecology, Conservation and Environmental Sciences
- Evolution and Biodiversity
- Genetics, Cellular and Developmental Biology
- History and Philosophy of Science
- Microbes
- Neurobiology and Physiology

37 Political Science, MA

Indicate likely major field of study:

- American Politics
- Comparative Politics
- International Relations

- Political Theory (If selecting Political Theory, please contact academic unit prior to application)

38 Religious Studies, MA

Choose one specialization:

- Buddhism
- Christianity
- Comparative themes in nationalism and ethnicity
- Comparative themes in popular religion
- Comparative themes in religion
- Comparative themes in religion and gender
- Comparative themes in religion and modernity
- Comparative themes in religion and science
- Comparative themes in ritual studies
- Hinduism
- Islam
- Judaism
- Modern Western Religious Thought
- Religions in East Asia
- Religions in Southeast Asia
- Religions in the Americas

39 Spanish, MA

Choose one concentration:

- Linguistics
- Literature and Cultural Studies

40 Sustainability, (MA/MS)

Choose 1st, 2nd, and 3rd preference specializations:

- Behavioral Change and Education
- Climate Change
- Ecosystem Services
- Energy and Material Use
- Food Systems
- Institutions and Social Change
- International Development
- Land Use Change
- Other – Please indicate what your interest is under “Additional Questions”
- Policy and Governance
- Urban Processes and Planning
- Vulnerability, Adaptation, and Resilience
- Water

41 Sustainability Solutions, MSUS

Choose 1st, 2nd, and 3rd preference specializations:

- Communication
- Entrepreneurship
- International Development
- Law
- Nonprofit Organization
- Policy and Administration
- Technology and Society

42 Urban and Environmental Planning, MUEP

Choose the topic that most interests you:

- City Building and Urban Structure
- Environmental and Resiliency Planning
- Housing, Neighborhoods, and Community Development
- Spatial Analytics and Smart Cities
- Transportation Planning and Policy

Every effort has been made to ensure that the information is accurate at the time of publishing, but changes may occur.

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