

VISUALIZATION - BS

The mission of the Bachelor of Science in Visualization program is to engage and develop the student's visual, intuitive and analytical capabilities through the scientific and aesthetic issues surrounding the use of technology in visual communication. To fulfill its mission, the program requires both a creative spirit and the technical understanding to adapt to the changing demands of the visual industries served by the departmental programs.

The curriculum integrates elements of fine arts, three-dimensional design, programming and digital technology to provide a broad, wide-ranging educational experience. The core of the program is the studio experience, which explores the relationship between theory and practices through a variety of exercises and projects using traditional and electronic media. Upon completion of the foundational courses, students will have the opportunity to select one of Visualization focus areas: Animation, Game Creation, or Interactive Design. A semester away from Texas A&M University is required during the junior year. This is followed by a capstone proposal and studio during the junior and senior years. A broad range of directed electives allows the student to gain an in-depth understanding of an area of specialization.

Graduates of the program are prepared to be technically adept artists, designers and/or tool-makers capable of utilizing interactive and directed media. Employment may be found in such fields as user interface and web design, the entertainment industry (game design and development, animation and visual effects), as well as fields such as modeling and simulation, data analytics and other fields where visualization contributes to understanding. Alternatively, graduates may enter graduate programs that emphasize digital media in either computer science or art/design. Two such programs, the Master of Science (MS) in Visualization and the Master of Fine Arts (MFA) in Visualization, are offered by the College of Performance, Visualization and Fine Arts at Texas A&M University.

Program Requirements

First Year

Fall		Semester Credit Hours
ARTS 115	Drawing for Visualization ¹	3
MATH 150 or MATH 151	Functions, Trigonometry and Linear Systems or Engineering Mathematics I	4
VIST 105	Principles of Design I ¹	3
VIST 131	First Year Seminar ¹	1
VIST 172	Foundations of Visual Computing ¹	3
Semester Credit Hours		14
Spring		Semester Credit Hours
ARTS 149 or ARTS 150	Art History Survey I ¹ or Art History Survey II	3
MATH 151 or MATH 152	Engineering Mathematics I or Engineering Mathematics II	4
VIST 106	Principles of Design II ¹	3
VIST 110	Design Innovation ¹	3
VIST 173	Foundations of Visual Computing II ¹	3
Semester Credit Hours		16

Second Year

Fall		Semester Credit Hours
ARTS 339 or ARTS 349	Themes in Contemporary Art ¹ or The History of Modern Art	3
PHYS 201	College Physics	4
VIST 210	Time and Interaction ¹	3
VIST 272	Visual Computing ¹	3
VIST 275	Production Techniques ¹	3
Semester Credit Hours		16
Spring		Semester Credit Hours
ENGL 104	Composition and Rhetoric	3
VIST 206	Visual Studies Studio I ¹	3
Life and physical sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#life-physical-sciences)		4
Directed elective ^{1,2}		3
Supporting elective ^{1,3}		3
Semester Credit Hours		16

Third Year

Fall		Semester Credit Hours
VIST 305	Visual Studies Studio II ¹	3
VIST 339	Research Techniques in Visualization ¹	3
Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication)		3
Social and behavioral sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences)		3
Directed elective ^{1,2}		3
Semester Credit Hours		15
Spring		Semester Credit Hours
VIST 301 or VIST 494	Field Studies in Design Innovation ^{1,4} or Internship	6
Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) ⁴		3
Supporting elective ^{1,3,4}		3
General elective ^{4,5}		3
Semester Credit Hours		15

Fourth Year

Fall		Semester Credit Hours
HIST 105	History of the United States	3
VIST 405 or VIST 409	Visual Studies Studio III or Capstone Studio	3
Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science)		3
Directed elective ¹		3
Supporting elective ²		3
Semester Credit Hours		15
Spring		Semester Credit Hours
HIST 106	History of the United States	3
VIST 409	Capstone Studio ¹	3

Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science)	3
Life and physical sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#life-physical-sciences)	1
Directed elective ^{1,2}	3
Semester Credit Hours	13
Total Semester Credit Hours	120

¹ Must make a grade of C or better.

² Select from ARTS 210, ARTS 212, ARTS 303, ARTS 304, ARTS 305, ARTS 308, ARTS 312, ARTS 315, ARTS 325, ARTS 328, ARTS 341, ARTS 353, VIST 235, VIST 282, VIST 283, VIST 284, VIST 310, VIST 357, VIST 370, VIST 372, VIST 386, VIST 439, VIST 465, VIST 470, VIST 472, VIST 474, VIST 476/CSCE 447, VIST 477/CSCE 446, VIST 480, VIST 487/CSCE 443.

³ Select from ARTS 200-499 (<http://catalog.tamu.edu/undergraduate/course-descriptions/arts/>); VIST 200-499 (<http://catalog.tamu.edu/undergraduate/course-descriptions/vist/>) (except 301, 311, 331, 494).

⁴ Semester Away: May be satisfied by study abroad, at another university, internship, or special arrangement by advisor or instructor. Electives may be taken online, distance education, at another university or college, or at study abroad university.

⁵ Select from any 300-499 course not used elsewhere. If you do not participate in study abroad, 3 hours will come from International and Cultural Diversity (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/>).

Students must also make a grade of C or better in any course used as an equivalent substitution for Visualization courses that satisfy degree requirements.