

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. 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 Department of Visualization at Texas A&M University.

Program Requirements

First Year

		Semester Credit Hours
Fall		
ARTS 115	Drawing for Visualization	3
ENGL 104	Composition and Rhetoric	3
PHYS 201	College Physics	4
VIST 105	Principles of Design I	3
VIST 131	First Year Seminar	1
VIST 284	Visualization Techniques	1
Semester Credit Hours		15
Spring		
ARTS 149	Art History Survey I	3
MATH 151	Engineering Mathematics I	4
VIST 106	Principles of Design II	3
VIST 170	Introduction to Visualization Computing Environments	1
VIST 284	Visualization Techniques	1
Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science)		3
Semester Credit Hours		15

Second Year

Fall		
ARTS 212	Life Drawing	3
MATH 152	Engineering Mathematics II	4
VIST 205	Principles of Design III	3
VIST 270	Computing for Visualization I	4
Visualization directed elective ¹		3
Semester Credit Hours		17
Spring		
ARTS 150	Art History Survey II	3
VIST 206	Visual Studies Studio I	3
VIST 235	Theory and Practice in Visualization	2
VIST 271	Computing for Visualization II	4
VIST 284	Visualization Techniques	1
Traditional arts ²		3
Semester Credit Hours		16

Third Year

Fall		
ARTS 349	The History of Modern Art	3
VIST 305	Visual Studies Studio II	3
VIST 339	Research Techniques in Visualization	3
VIST 375	Foundations of Visualization	3
Life and physical sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#life-physical-sciences)		4
Semester Credit Hours		16
Spring		
CARC 301 or VIST 494	Field Studies in Design Innovation ³ or Internship	6
Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) ³		3
Free elective ^{3,4}		3
Semester Credit Hours		12

Fourth Year

Fall		
HIST 105	History of the United States	3
VIST 405	Visual Studies Studio III	3
VIST 432 or VIST 441	Applied Perception or Scientific and Technological Developments in Visual Arts	3
VIST 439	Capstone Proposal Development	1
Digital arts ⁵		3
Life and physical sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#life-physical-sciences)		1
Semester Credit Hours		14
Spring		
HIST 106	History of the United States	3
VIST 409	Capstone Studio	3
Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication)		3

Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science)	3
Social and behavioral sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences)	3
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Semester Credit Hours	15
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Total Semester Credit Hours	120

¹ Select from any 300 or 400 level ARTS (<http://catalog.tamu.edu/undergraduate/course-descriptions/arts/>) or VIST (<http://catalog.tamu.edu/undergraduate/course-descriptions/vist/>) courses

² Select from ARTS 305, ARTS 308, ARTS 311, ARTS 312, ARTS 315, ARTS 325, ARTS 328, ARTS 353, VIST 310, VIST 465.

³ Semester Away Semester. May be satisfied by study abroad, at another university, internship, or special arrangement by advisor or instructor. Electives may be taken during summer, online, distance education, at another university or college, or at study abroad university.

⁴ Select from any 300-499 course not used elsewhere. If you do not participate in study abroad, 3 hours will come from ICD. (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/>)

⁵ Select from ARTS 303, ARTS 304, ARTS 403, VIST 357, VIST 370, VIST 372, VIST 374, VIST 470, VIST 472, VIST 476/CSCE 447, VIST 477/CSCE 446, VIST 486, VIST 487/CSCE 443.

A grade of C or better must be made in all College of Architecture courses (ARCH, ARTS, CARC, COSC, ENDS, LAND, LDEV, VIST, URPN and VIZA). Students must also make a grade of C or better in any course used as an equivalent substitution for College of Architecture courses that satisfy degree requirements.