

DIGITAL MEDIA DESIGN, BSE

The Digital Media Design (DMD) program is an interdisciplinary major in the School of Engineering and Applied Science at Penn. As a full-fledged Bachelors in Engineering and Science (BSE) degree, it combines major coursework in computer graphics within the Computer & Information Science Department, Communication theory courses from the Annenberg School and Fine Arts courses from Penn's School of Design. The program was designed for students who have an interest in computer graphics, animation, games, and the design of virtual reality environments and interactive technologies. The Digital Media Design Program was established in response to what we perceived as a growing rift within the computer graphics and animation industry.

For more information: <https://www.seas.upenn.edu/prospective-students/undergrad/majors/digital-media-design/>

Digital Media Design (DMD) Major Requirements

40 course units are required. Read more about the Undergraduate Student Handbook (<http://www.seas.upenn.edu/undergraduate/handbook>).

Code	Title	Course Units
Engineering		
CIS 110	Introduction to Computer Programming	1
CIS 120	Programming Languages and Techniques I	1
CIS 121	Programming Languages and Techniques II	1
CIS 240	Introduction to Computer Systems	1
CIS 320	Introduction to Algorithms	1
CIS 460	Interactive Computer Graphics	1
CIS 462 or CIS 455	Computer Animation Internet and Web Systems	1
CIS 461	Advanced Computer Graphics	1
CIS 497	DMD Senior Project	1
CIS 200 level or above		2
CIS Elective		1
Math & Natural Science		
<i>Math Core</i>		
MATH 104	Calculus, Part I	1
MATH 114	Calculus, Part II	1
CIS 160	Mathematical Foundations of Computer Science	1
CIS 262	Automata, Computability, and Complexity	1
EAS 205 or MATH 312 or MATH 313	Applications of Scientific Computing. Linear Algebra Computational Linear Algebra	1
<i>Math Elective</i>		
<i>Natural Science Core</i>		
Select two of the following:		2
PHYS 140 & PHYS 150	Principles of Physics I (without laboratory) and Principles of Physics I: Mechanics and Wave Motion	

MEAM 110 & MEAM 147	Introduction to Mechanics and Introduction to Mechanics Lab	
PHYS 141 or PHYS 151	Principles of Physics II (without laboratory) Principles of Physics II: Electromagnetism and Radiation	
<i>Electives</i>		
Math or Natural Science		1
Natural Science		2
DMD Electives		
FNAR 123 or FNAR 124	Drawing I Drawing Investigations	1
FNAR 235 or FNAR 236	3-D Computer Modeling Digital Figure Modeling	1
Select 7 DMD Electives ¹		7
Social Sciences and Humanities ²		
Select 2 Social Science courses.		2
Select 2 Humanities courses.		2
Select 1 Social Science or Humanities course.		1
Select 2 Social Science or Humanities or Technology in Business & Society courses.		2
Free Elective		
Select 2 free electives ³		2
Total Course Units		40

¹ Select courses from offerings in the following categories: COMM; FNAR, CIMS, THAR, MKTG, EDUC (Advisor approval is required).

² The Social Science & Humanities Depth, Writing & Ethics Requirement can be satisfied with the 7 total course units.

³ Approval is required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2018 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.