DIGITAL ARTS AND SCIENCES | BACHELOR OF SCIENCE

The Digital Arts and Sciences (DAS) program crosses college boundaries between engineering and the arts. This degree is an interdisciplinary engineering program.

About this Program

- **College:** Herbert Wertheim College of Engineering (https://catalog.ufl.edu/UGRD/colleges-schools/UGENG/)
- **Degree:** Bachelor of Science in Digital Arts and Sciences
- **Credits for Degree:** 120
- **More Info**

To graduate with this major, students must complete all university, college, and major requirements.

Department Information

The mission of the Department of Computer & Information Science & Engineering is to educate students, as well as the broader campus community, in the fundamental concepts of the computing discipline; to create and disseminate computing knowledge and technology; and to use expertise in computing to help society solve problems.
Website (https://www.cise.ufl.edu/)

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Curriculum

- /UGRD/colleges-schools/UGENG/CPE_BSCO03/
- Combination Degrees
- Computer and Information Science and Engineering Minor
- Computer and Information Science and Engineering Minor UF Online
- Computer Science UF Online
- Computer Science | CLAS
- Computer Science | Herbert Wertheim College of Engineering
- Digital Arts and Sciences | Bachelor of Science
- Industrialized Construction Engineering

The Digital Arts and Sciences (DAS) degree is a core computer science degree with special emphasis on human-centered computing, which includes art, design and computing courses that are related to digital media, interaction and communication. Graduates will be well versed in issues and solutions for basic art techniques and graphic art design as well as modeling 3D virtual worlds. The DAS graduate also will be well versed in collaborative multidisciplinary team models.

Intermediate and final class projects are centered around a balanced-team composition focusing on multimedia productions.

Department Requirements

Students must complete all critical-tracking courses with minimum grades of C in each course and the critical-tracking GPA must be 2.5 or higher. A minimum grade of C is required in all other courses that are prerequisites or corequisites to a required course.

In addition, CISE requires all DAS students to maintain a cumulative, upper-division and department GPA minimum of 2.0.

Students who do not meet these requirements will be placed on academic probation and will be required to prepare a probation contract with a CISE advisor. Students normally are given two terms in which to remove their deficit points or to remedy their probation status; however, students who do not satisfy the conditions of the first term of probation may be dismissed from the department.

Required Courses

Code	Title	Credits
CAP 3027	Introduction to Computational Media	3
CDA 3101	Introduction to Computer Organization	3

COP 3502C	Programming Fundamentals 1	4
COP 3530	Data Structures and Algorithm	3
COP 4600	Operating Systems	3
COT 3100	Applications of Discrete Structures	3
MAS 3114	Computational Linear Algebra	3

Critical Tracking

Critical Tracking records each student's progress in courses that are required for progress toward each major. Please note the critical-tracking requirements below on a per-semester basis.

Equivalent critical-tracking courses as determined by the State of Florida Common Course Prerequisites (https://cpm.flvc.org/advance-search/) may be used for transfer students.

Semester 1

- Complete 1 of 7 critical-tracking courses with a minimum grade of C within two attempts: ARH 2051, MAC 2311, MAC 2312, MAC 2313, MAP 2302, PHY 2048, PHY 2049
- 2.5 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Semester 2

- Complete 1 additional critical-tracking course with a minimum grade of C within two attempts
- 2.5 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Semester 3

- Complete 2 additional critical-tracking courses with minimum grades of C within two attempts
- 2.5 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Semester 4

- Complete 2 additional critical-tracking courses with minimum grades of C within two attempts
- 2.5 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Semester 5

- Complete all 8 critical-tracking courses with minimum grades of C in each course within two attempts
- 2.5 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Semester 6

- Complete COP 3503C and COT 3100
- 2.0 departmental GPA required
- 2.0 UF GPA required

Semester 7

- Complete COP 3530
- 2.0 departmental GPA required
- 2.0 UF GPA required

Semester 8

- Complete CAP 3020
- 2.0 departmental GPA required
- 2.0 UF GPA required

Model Semester Plan

Students are expected to complete the General Education International (GE-N) requirement. This is often done concurrently with another General Education requirement (typically, GE-C, H or S).

To remain on track, students must complete the appropriate critical-tracking courses, which appear in bold. These courses must be completed by the terms as listed above in the Critical Tracking criteria.

This semester plan represents an example progression through the major. Actual courses and course order may be different depending on the student's academic record and scheduling availability of courses. Prerequisites still apply.

Course	Title	Credits
Semester One		
Quest 1 (Gen Ed Humanities)		3
COP 3502C	Programming Fundamentals 1	4
EGN 2020C	Engineering Design & Society	2
MAC 2311	Analytic Geometry and Calculus 1 (**Critical Tracking**; State Core Gen Ed Mathematics)	4
	Credits	**13**
Semester Two		
CAP 3032	Interactive Modeling and Animation 1	3
COP 3503C	Programming Fundamentals 2	4
MAC 2312	Analytic Geometry and Calculus 2 (**Critical Tracking**; Gen Ed Mathematics)	4
PHY 2048	Physics with Calculus 1 (**Critical Tracking**; State Core Gen Ed Physical Sciences)	3
PHY 2048L	Laboratory for PHY 2048 (Gen Ed Physical Sciences)	1
	Credits	**15**
Semester Three		
UF Quest 2 (Social and Behavioral Sciences)		3
CAP 3220	Introduction to Computer-Aided Modeling	3
COT 3100	Applications of Discrete Structures (**Critical Tracking**)	3
MAC 2313	Analytic Geometry and Calculus 3 (**Critical Tracking**; Gen Ed Mathematics)	4
PHY 2049	Physics with Calculus 2 (**Critical Tracking**; Gen Ed Physical Sciences)	3
PHY 2049L	Laboratory for PHY 2049	1
	Credits	**17**
Semester Four		
ARH 2051	Introduction to the Principles and History of Art 2 (**Critical Tracking**; Gen Ed Humanities and International)	3
CAP 3034	Introduction to Computer-Aided Animation	3
COP 3530	Data Structures and Algorithm (**Critical Tracking**)	3
MAP 2302	Elementary Differential Equations (**Critical Tracking**)	3
Gen Ed Social and Behavioral Sciences		3
	Credits	**15**
Semester Five		
CAP 3027	Introduction to Computational Media	3
CEN 3031	Introduction to Software Engineering	3
ENC 1101 or ENC 1102	Expository and Argumentative Writing (Gen Ed Composition; Writing Requirement: 6,000 words) or Argument and Persuasion	3
MAS 3114 or MAS 4105	Computational Linear Algebra or Linear Algebra 1	3
PHI 2010	Introduction to Philosophy (State Core Gen Ed Humanities (https://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext); Writing Requirement: 6,000 words)	3
	Credits	**15**
Semester Six		
ART 2353C	Drawing Studio	3
CAP 3020	Theory and Practice of Multimedia Production (**Critical Tracking**)	3
COT 4501	Numerical Analysis: a Computational Approach	3
CISE elective		3
Interdisciplinary elective		3
	Credits	**15**
Semester Seven		
Select one:		3
ART 2013C	Space Studio	

ART 2701C	Sculpture: Shaping Form and Space	
ART 2702C	Sculpture: Gravity and Buoyancy	
CIS 4930	Special Topics in CISE	3
ENC 3246	Professional Communication for Engineers (State Core Gen Ed Composition (https://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext); Writing Requirement: 6,000 words)	3
CISE elective		3
Interdisciplinary elective		3
	Credits	**15**
Semester Eight		
CAP 4730	Computational Structures in Computer Graphics	3
CIS 4914	Senior Project	3
COP 4020 or COP 4600	Programming Language Concepts or Operating Systems	3
EGS 4034	Engineering Ethics and Professionalism	1
Interdisciplinary electives		5
	Credits	**15**
	Total Credits	**120**

Academic Learning Compact

The major crosses college boundaries between engineering and the arts. This degree is an interdisciplinary engineering program combining developing skills in art and computers. Students will be well-versed in issues and solutions for basic art technique and graphic art design, as well as modeling 3D virtual worlds. Students will be experienced in collaborative multidisciplinary teams, compositions, and projects focusing on multimedia productions.

Before Graduating Students Must

- Pass assessment of performance on a major design experience, according to department grading rubric.
- Pass assessment in one or more core courses of individual assignments targeted to each SLO.
- Complete requirements for the baccalaureate degree, as determined by faculty.

Students in the Major Will Learn to

Student Learning Outcomes | SLOs

Content

1. Apply knowledge of mathematics and science to computer science problems.
2. Apply knowledge of multimedia, human-computer interaction, computer graphics, and simulation to application domains.

Critical Thinking

3. Design a human-computer interface involving animation, sound, and immersive virtual environments.

Communication

4. Communicate technical information in a collaborative team environment.

Curriculum Map

I = Introduced; R = Reinforced; A = Assessed

Courses	SLO 1	SLO 2	SLO 3	SLO 4
CAP 4730	I, A	I, A		
CEN 3031				I, A
CIS 4914	A	A	A	A

Assessment Types

- Assignments
- Exams
- Reports
- Exit survey