DIGITAL INFORMATION AND APPLICATIONS MINOR

Introduction

The Digital Information and Applications minor is a set of courses meant to enable students to put ideas and concepts drawn from their own major discipline into action in a world increasingly dependent on digital tools and technologies. As noted by Peter Drucker, most Americans are now "Knowledge Workers", and this minor is meant to amplify the abilities of students in these areas.

The minor is intended to allow students to do more with their undergraduate degrees, by enabling them to make use of current computational and statistical tools to achieve their goals in the world beyond the statistical and computational disciplines. These are skills that are useful for both novel work within graduate programs (particularly in the social sciences, the applied sciences and digital humanities), and also in the workplace, as applied pragmatic skills and capabilities, that *augment* traditional liberal arts or business majors, not replace them. The goal is to help enable students to put learning into action through the application of technology.

The Applied Digital Studies Minor requires a **total of 6 courses or 5 courses plus an internship or research project**. Please note, a minimum of one half of the courses taken must be courses not counted within the student's major (particularly applies to Computer Science and Economics students). In addition, the optional internship or research project may be done after at least 4 courses in the minor are complete, and the research project must use methods from the minor.

Curriculum

Code	Title	Credits
CSC 111 & 111L	Introduction to Programming and Introduction to Programming Laboratory	4
Select one of the following statistical courses:		3-4
ECO 255	Business Statistics	
MAT 131	Statistics for Social Sciences	
MAT 141	Inferential Statistics and Computers for Science	
DAT 211	Advanced Statistics with R	
MAT 351	Probability & Statistics I	
Select one course from the Math, Science, and Logic electives listed below		3-4
Select one course from the Application of Technology electives listed below		3-4
One additional elective from either group of electives		3-4
One additional course from either group of electives OR an internship/research project course		0-3
CSC 480	Research Experience	
DAT 499	Independent Study Course in Data Science	
CSC 481	Research Experience	
CSC 497	Internship	
Total Credits		**16-23**

Math, Science, and Logic Electives (select at least one course)

Code	Title	Credits
CSC 112 & 112L	Data Structures and Data Structures Laboratory	4
CSC 310 & 310L	Information Organization and Processing and Information Organization and Processing Laboratory	4
DAT 111	Introduction to Reporting and Analysis	3
ECO 310	Introduction to Geographic Information Systems	3
ECO 256	Business Analytics	3
MAT 191	Discrete Mathematics I	4
MAT 219	Linear Algebra	4
MAT 352	Probability & Statistics II	3
PHI 225	Logic	3
SOC 315	Geographical Information Systems (GIS) for the Social Sciences	3

Application of Technology Electives (select at least one course)

Code	Title	Credits
CSC 108	Introduction to Web Computing	3
CSC 310 & 310L	Information Organization and Processing and Information Organization and Processing Laboratory	4
CSC 320	The Social Impact of Computing	3
DMA 201	Introduction to Digital Media	3
DMA 217	Interaction Design	3
DMA 370	Designing for Mobile Devices	3
DMA 442	Advanced Web Design	3
PHI 246	Ethics of Technology	3

Minors are an important part of the undergraduate curriculum. If students declare a minor by sophomore year, they can usually complete it in a timely manner. Students should work with their advisor to determine if it is possible that the minor can be completed by graduation.

To receive a minor, a student must complete at least 9 credit hours of coursework distinct from their major(s) and from other minors, and students must complete more than 50% of the coursework required for the minor at Canisius. Please note that "ancillary/supporting" courses required for a major may still count as distinct courses as long as the remaining coursework still meets the 30 credit-hours required for a major. For more information about minor policies, please see the Declaring Majors and Minors (http://catalog.canisius.edu/undergraduate/academics/student-records/declaring-majors-minors/) page in the catalog.

Roadmap

This minor can be useful for various majors. For example, a student majoring in history may be interested in pursuing a field of study in forming and maintaining databases. An English major may be interested in pursuing a career in web-based media. The following roadmaps provide examples of courses that would be useful for students in these majors.

The following roadmaps are provided as examples based on different majors and courses of study. Students interested in the minor are strongly encouraged to speak with Dr. David Sheets, the coordinator of the program, for an individualized plan.

History Major Sample Roadmap

Sophomore

Fall	Spring
CSC 111 & 111L	CSC 112 & 112L

Junior

Fall	Spring
MAT 131	CSC 310 & 310L

Senior

Fall	Spring
PHI 225	PHI 246

English Major Sample Roadmap

Sophomore

Fall	Spring
MAT 131	PHI 225

Junior

Fall	Spring
CSC 111 & 111L	DMA 201

Senior

Fall	Spring
DMA 442	CSC 108