OLD DOMINION UNIVERSITY
PROPOSAL FOR A NEW MINOR, NEW INTERDISCIPLINARY MINOR
OR SIGNIFICANT CHANGES TO AN EXISTING MINOR

A minor may be chosen by students to support the major, to offer greater job opportunities to the student on graduation, or to provide recognition of study in a second academic area. Completion of an approved minor will meet the upper-division General Education requirement. A minimum of 12 credit hours, normally at the advanced level (300-400) in a specified field of study is required.

Interdisciplinary minors require 12 credit hours of 300/400-level courses selected from at least two different disciplines with a maximum of six credits from any one discipline. Three credit hours in the interdisciplinary minor may be in the major, if a major course is listed as an option for the interdisciplinary minor. As such, it will be credited toward both the major and the interdisciplinary minor.

Please refer to the Undergraduate Catalog for the complete policy on minors.

Minimum enrollment expectations for minors are five graduates in five years or the minor will be discontinued.

Proposed Action (check one)

◯ New Minor ◯ New Interdisciplinary Minor ◉ Significant Changes to an Existing Minor

1. Name of proposed minor or minor to be changed:
   Data Science

2. Description of proposed minor or change to an existing minor:
   The changes will increase the available electives to include a new discipline (Biology) and expand offerings in Computer Science and Public Health.

3. Rationale for proposal:
   (address what the proposed minor will accomplish for students)
   The expansion of electives will increase the applicability and appeal for students in complementary areas and expand availability of the minor across schools. Data Science skills will expand the number and types of jobs students can apply to.

4. Majors likely to enroll in the minor (for new minors):

5. Projected enrollment and why (for new minors):

6. Proposed Effective Term:
   Spring 2025

7. Resources needed, including human resources, library resources, faculty resources, and funding resources:

    No additional resources are needed

8. Program requirements: [List below all courses required for the minor, the prerequisites, and the total hours required for the minor. Submit the appropriate information through the online Course Inventory Management (CIM) process in CourseLeaf (nextcatalog.odu.edu/courseadmin) for all new courses/course changes.]

    See attached.

9. Description (showing new copy or revised copy) for the next Undergraduate Catalog.

    The changes will increase the available electives to include a new discipline (Biology) and expand offerings in Computer Science and Public Health.

10. Schedule for offering courses (include whether the minor can be completed in two years and whether it will be available through Distance Learning) (for new minors):

11. Effect on current department course schedule (for new minors):

APPROVED

Holly A. H. Handley
Digitally signed by Holly A. H. Handley
Date: 2024.11.25 08:30:22 -05'00'
_____
College Dean   Date

_____   11/20/24
Originator of Request

Approvals received from
Biology, Public Health,
and Computer Science via email

11/19/2024
11/20/2024
11/24/2024
_____
External Department Chair(s)   Date
(If applicable)

_____   11/20/2024
Department Chair

_____
Chair, Faculty Senate   Date
Committee A

_____   11/20/24
Chair, College Committee

_____
Provost   Date

ADMINISTRATIVE CODING

Effective Term_____   Major Code _____

College _____   Degree Code _____

Department _____

Data Science Minor

Total: 12 – 14 credit hours

Two Required Courses (unchanged) – 6 credit hours

DASC 300 Foundations of Data Science (3 cr)

DASC 357E Ethics and Data (3 cr)

Two Electives Chosen from list below – 6-8 credit hours

New Electives to be added

BIOL 451 Bioinformatics and Genomics I (4 cr)

BIOL 454 Research in Pathogen Biology: Laboratory Investigation (4 cr)

BIOL 455 Research in Pathogen Biology: Analysis (4 cr)

CS 422 Introduction to Artificial Intelligence (3 cr)

ENVH 448 Epidemiology and Biostatistics (3 cr)

PUBH 461 Managerial Epidemiology (3 cr)

Electives to be Updated

Change MSIM 480 to **CS 480 – Introduction to Machine Learning (3 cr)** – same course

Existing Electives retained unchanged

BDA 401 Programming Languages for Data Science (3cr)

BDA 411 Introduction to Machine Learning (3cr)

BNAL 306 Business Analytics II (3cr)

PUBH 445 Health Services Research Methods (3cr)

CYSE 420 Applied Machine Learning in Cybersecurity (3cr)

CS 432 Web Science (3cr)

CRJS 344 Social Science and Crime Mapping (3cr)

CRJS/SOC 436 Capstone Research Project (3cr)

ECE 407 Introduction to Game Development (3cr)

ECON 311 Economics, Causality, and Analytics (3cr)

ECON 400 Research Methods in Economics (3cr)

EXSC 420 Research Methods in Exercise Science (3cr)

GAME 440 Advanced Visual Design and Digital Graphics for Games (3cr)

GEOG 402 Geographic Information Systems (3cr)

GEOG 425 Internet Geographic Information Systems (3cr)

HPE 406 Tests and Measurement in Physical Education and Health (3cr)

OEAS 451W Data Collection and Analysis in Oceanography (4cr)

POLS 418 Quantitative Methods (3cr)

SEPS 420 Fashion Research (3cr)

STAT 310 Introductory Data Analysis (3cr)

STEM 382 Industrial Design (3cr)