

# Data Science

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## Department Information

- **Department Web Site:**  
[www.ndsu.edu/cs/](http://www.ndsu.edu/cs/); [www.ndsu.edu/statistics/](http://www.ndsu.edu/statistics/) (<http://www.ndsu.edu/cs/>; [www.ndsu.edu/statistics/](http://www.ndsu.edu/statistics/))
- **Credential Offered:**  
 B.S.; UG Certificate
- **Program Overview:**  
[catalog.ndsu.edu/programs-study/undergraduate/data-science/](http://catalog.ndsu.edu/programs-study/undergraduate/data-science/) (<http://catalog.ndsu.edu/programs-study/undergraduate/data-science/>)

## Certificate Requirements

### Certificate: Data Science

Minimum Credits: 9

| Code                                  | Title                                                       | Credits  |
|---------------------------------------|-------------------------------------------------------------|----------|
| CSCI 420                              | Introduction to Data Science in Python                      | 3        |
| CSCI 422                              | Fundamentals of Data Engineering                            | 3        |
| or CSCI 425                           | Machine Learning                                            |          |
| or CSCI 426                           | Introduction to Artificial Intelligence                     |          |
| Select one course from the following: |                                                             | 3        |
| CSCI 422                              | Fundamentals of Data Engineering (if not used above)        |          |
| CSCI 425                              | Machine Learning (if not used above)                        |          |
| CSCI 426                              | Introduction to Artificial Intelligence (if not used above) |          |
| CSCI 428                              | Artificial Intelligence, Ethics, and the Environment        |          |
| CSCI 436                              | Intelligent Agents                                          |          |
| CSCI 450                              | Cloud Computing                                             |          |
| CSCI 479                              | Introduction to Data Mining                                 |          |
| GEOG 455                              | Introduction to Geographic Information Systems              |          |
| <b>Total Credits</b>                  |                                                             | <b>9</b> |