AS: Data Science
2019-2020

Data scientists require knowledge in a variety of information technology sub-fields, including algorithms, data structures, programming languages and statistical methods. While the field of Data Science is computer science centric, statistical and domain expertise is required. Accordingly, the data scientist may specialize in various fields, including business, physics, biology, finance and economics.

The Data Science AS gives students the skills to analyze, procure, store and process large amounts of data. The study of Data Science will have students dealing with data that comes from disparate sources in the modern context of the Internet, in various unstructured forms and across academic disciplines.

Program Courses

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI1040</td>
<td>Fundamentals of Structured Query Language (SQL)</td>
<td>3</td>
</tr>
<tr>
<td>CSCI1130</td>
<td>Introduction to Programming in Java (CS0)</td>
<td>4</td>
</tr>
<tr>
<td>CSCI2001</td>
<td>Object Oriented Programming (CS1)</td>
<td>4</td>
</tr>
<tr>
<td>CSCI2011</td>
<td>Programming in Python</td>
<td>1</td>
</tr>
<tr>
<td>CSCI2030</td>
<td>Database Modeling and Design</td>
<td>4</td>
</tr>
<tr>
<td>DSCI2001</td>
<td>Data Science I</td>
<td>4</td>
</tr>
<tr>
<td>DSCI2002</td>
<td>Data Science II</td>
<td>4</td>
</tr>
<tr>
<td>DSCI 2009</td>
<td>Interdisciplinary Applications in Data Science</td>
<td>2</td>
</tr>
</tbody>
</table>

Program Electives

Choose 1 course from the following:

- CSCI1150 Programming in C# for .NET or
- CSCI1180 Introduction to Linux Operating System or
- CSCI2002 Data Structures and Algorithms or
- CSCI2010 Discrete Mathematical Structures
- MATH12000 Discrete Mathematical Structures

General Education Courses

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL1200</td>
<td>Gateway College Writing or</td>
<td>4</td>
</tr>
<tr>
<td>ENGL1201</td>
<td>College Writing I</td>
<td>4</td>
</tr>
<tr>
<td>ENGL1202</td>
<td>College Writing II</td>
<td>2</td>
</tr>
</tbody>
</table>

College Writing II:

- COMM1010 or COMM1210 - 1 Course:
- COMM1010 Fundamentals of Public Speaking or

Natural Science: 1 course with a lab - 4 credits

Physics, Chemistry, or Biology Recommended

<table>
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<tr>
<th>ECON 1060, ECON 1070, PSYC 1150 - 1 course:</th>
</tr>
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</table>

- ECON1060 Principles of Macroeconomics or
- ECON1070 Principles of Microeconomics or

Mathematics - 7 credits

- MATH1150 College Algebra
- MATH1210 Applied Statistics

Goal Areas 6-10

- Any classes meeting MnTC Goals 6, 7, 8, 9, 10

Total Credit Required 60
Degree Information
The Associate of Science (A.S.) degree is intended for students whose primary goal is to complete the credentials for a specific career and/or prepare for transfer to complete a bachelor’s degree at a college or university with whom North Hennepin Community College has an articulation agreement. The A.S. degree provides a balance of general education courses and the required scientific, professional or technical courses in the degree program.
A student shall:

Earn a minimum of 60 semester credits as required in the program, with a grade point average of 2.00 (C) or above in courses taken at North Hennepin Community College. Specific programs may have additional requirements or a higher minimum grade point average.
Earn a minimum of 15 semester credits at North Hennepin Community College. A student must complete at least 50% of career specific courses at North Hennepin Community College.
Earn 30 credits in at least 6 Minnesota Transfer Curriculum (MnTC) goal areas. Earn 30 professional/technical credits.
Have four years to complete the graduation requirements as published in the catalog in effect at the time of their initial enrollment. Students taking more than four years to complete their graduation requirements may follow any catalog published during the four-year period preceding their graduation.
Completion of an A.S. degree fulfills the Goal Area 2 requirement of the Minnesota Transfer Curriculum (MnTC).

Developmental Courses
Some students may need preparatory course(s) in Math and/or English. Courses numbered below 1000 will not apply toward a degree.

Equal Opportunity Employer and Disability Access Information
North Hennepin Community College is a member of Minnesota State Colleges and Universities system and an equal opportunity employer and educator. This document is available in alternative formats to individuals with disabilities by calling 763-493-0555 or through the Minnesota Relay Service at 1-800-627-3529.

Transfer Information
If you are planning on transferring to another institution, follow the guidelines available on our transfer resources web page to help you plan the process: Transfer Information

Career Opportunities
Information on careers, including salary and employment outlook data, is available on the iseek and Bureau of Labor Statistics websites: www.iseek.org and www.bls.gov.