## Analytics and Data Science Public Pathways Program

We have partnered with Nashua Community College to offer a Pathways Program that allows you to smoothly transition to UNH Manchester. This curriculum map shows you the MCC course sequence you should follow for seamless transfer into our B.S. in Analytics and Data Science degree program.

<table>
<thead>
<tr>
<th>Students must take these courses at NCC…</th>
<th>To fulfill these UNH degree requirements…</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101 – College Composition</td>
<td>Discovery writing skills course</td>
</tr>
<tr>
<td>CSCI 106 – Introduction to Software</td>
<td>Elective credit</td>
</tr>
<tr>
<td>MATH 106 – Statistics I&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Discovery quantitative reasoning</td>
</tr>
<tr>
<td>CSCI 161 – Introduction to Programming</td>
<td>Elective credit</td>
</tr>
<tr>
<td>CSCI 175 – Programming in C++</td>
<td>COMP 425 – Computing Fundamentals</td>
</tr>
<tr>
<td>CSCI 140 – Essentials of Systems Analysis&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Elective credit</td>
</tr>
<tr>
<td>MATH 206 – Statistics II&lt;sup&gt;1&lt;/sup&gt;</td>
<td>COMP 490 – Statistics in Computing and Engineering</td>
</tr>
<tr>
<td>Discovery-approved physical science course</td>
<td>Discovery physical science/DLAB course</td>
</tr>
<tr>
<td>BUS 101 – Introduction to Business</td>
<td>BUS 400 – Introduction to Business</td>
</tr>
<tr>
<td>MATH 210 – Calculus I</td>
<td>MATH 425 – Calculus I</td>
</tr>
<tr>
<td>CSCI 207 – Database Design &amp; Management&lt;sup&gt;2&lt;/sup&gt;</td>
<td>COMP 520 – Database Design &amp; Management</td>
</tr>
<tr>
<td>CSCI 230 – Advanced Programming Using C++&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Elective credit</td>
</tr>
<tr>
<td>ENGL 122 – Technical Writing</td>
<td>ENG 502 – Technical Writing</td>
</tr>
<tr>
<td>Discovery-approved social science course</td>
<td>Discovery social science course</td>
</tr>
<tr>
<td>MATH 211 – Calculus II</td>
<td>MATH 426 – Calculus II</td>
</tr>
<tr>
<td>CSCI 278 – Data Structures Using C++&lt;sup&gt;3&lt;/sup&gt;</td>
<td>COMP 525 – Data Structures Fundamentals</td>
</tr>
<tr>
<td>Discovery-approved humanities or fine arts course</td>
<td>Discovery humanities or fine and performing arts course</td>
</tr>
<tr>
<td>MATH 215 – Linear Algebra</td>
<td>MATH 545 – Introduction to Linear Algebra or MATH 645 – Linear Algebra for Applications</td>
</tr>
</tbody>
</table>

**Note:** See page 3 for information about UNH’s Discovery Program courses.

1. Major credit when paired with MATH 206 for COMP 490. Students must earn a grade of C or better in both MATH 106 and MATH 206 to earn credit for COMP 490.

2. Major credit when paired with CSCI 207 for COMP 520. Students must earn a grade of C or better in both CSCI 140 and CSCI 207 to earn credit for COMP 520.

3. Major credit when paired with CSCI 278 for COMP 525. Students must earn a grade of C or better in both CSCI 230 and CSCI 278 to earn credit for COMP 525.

Course titles, names and/or sequencing are subject to change.
If you are enrolled in the NH Dual Admission Program and/or plan to finish your associate degree at NCC, complete the following requirements at UNH Manchester to receive your bachelor’s degree.

### Major Course Requirements:

- MATH 739 – Applied Regression
- COMP 430 – System Fundamentals
- COMP 525 – Data Structures Fundamentals
- DATA 674 – Predictive and Prescriptive Analytics I
- DATA 675 – Predictive and Prescriptive Analytics II
- DATA 757 – Big Data
- BUS 453 – Leadership for Managers
- BUS 620 – Organizational Behavior
- USMT 599 – Professional Development Seminar (1 credit)
- DATA 690 – Internship Experience (4 credits)
- DATA 790 – Capstone Project

### Discovery Program* Course Requirements:

- Discovery biological science course
- Discovery environment, technology and society course
- Discovery historical perspectives course
- Discovery world cultures course
- Discovery humanities or fine and performing arts course

### University Degree Requirements:

- Elective courses to fill remaining credits required for bachelor’s degree (128 total)
- University writing requirement**

---

* See page 3 for information about UNH’s Discovery program.

** Bachelor degree candidates are required to complete four writing-intensive courses, which must include: English 401 – First Year Writing (or equivalent transfer English composition course), and three additional writing-intensive courses, one in the student’s major and one at the 600-level or above.

An advisor at UNH Manchester will provide you with the best possible guidance for course selections each term.

Please also note:

- UNH Manchester accepts a maximum of 72 credits in transfer from 2-year institutions. Only courses completed with a grade of C or better will be accepted as transfer credits.
- Students must earn a minimum overall grade point average of 2.50 at NCC to be eligible for dual enrollment at UNH Manchester.

Course titles, names and/or sequencing are subject to change.
The Nashua Community College courses* listed below fulfill UNH Manchester’s Discovery Program course requirements:

Writing Skills
ENGL 101N – College Composition
ENGL 110N – Honors Expository Writing

Quantitative Reasoning
CSCI 161N – Intro to Programming Using Visual Basic
CSCI 175N – Intermediate Programming Using C++
MATH 106N – Statistics I
MATH 107N – Honors Statistics I
MATH 115N – Finite Mathematics
MATH 170N – Discrete Mathematics
MATH 206N – Statistics II
MATH 210N – Calculus I
MATH 214N – Honors Calculus I

Biological Science/DLAB
BIOL 101N – Germs 101
BIOL 105N – Biology in Focus I
BIOL 106N – Biology in Focus II
BIOL 107N – Principles of Biology I
BIOL 108N – Principles of Biology II
BIOL 111N – Basic Human Anatomy & Phys.
BIOL 130N – Anatomy and Physiology I
BIOL 131N – Anatomy and Physiology II
BIOL 201N – Adv. Anatomy and Physiology I
BIOL 202N – Adv. Anatomy and Physiology II
BIOL 210N – Medical Microbiology

Physical Science/DLAB
ENVS 105N – Earth Science
CHEM 110N – Intro to Chemistry
CHEM 130N – General Chemistry I
CHEM 131N – General Chemistry II
CHEM 135N – Honors Environment in Chemical Perspective
PHYS 101N – Physical Science I
PHYS 102N – Physical Science II
PHYS 115N – Astronomy
PHYS 116N – Meteorology
PHYS 130N – Physics I
PHYS 131N – Physics II
PHYS 230N – Calculus-Based Physics I
PHYS 231N – Calculus-Based Physics II

Environment, Technology & Society
ENVS 101N – Environmental Science
SOCI 215N – Sociology of Technology

Historical Perspectives
HIST 101N – Western Civ. Ancient to 17 Century
HIST 102N – Western Civ. Since French Revolution
HIST 110N – Ancient Civ. of the World
HIST 140N – US History Colonial to Reconstruction
HIST 141N – US History since Reconstruction
HIST 215N – New Hampshire History
HIST 232N – History of Modern Asia
HIST 241N – American Constitutional History
HIST 246N – Modern America
HIST 260N – History of Multiculturalism
HIST 265N – Latin Amer. History from Independence to the Present

World Culture
ANTH 110N – Cultural Anthropology
ANTH 263N – Intro to Chinese Culture & Society
GEOG 110N – World Regional Geography
SPAN 205N – Spanish III
SPAN 206N – Spanish IV

Fine and Performing Arts
ARTS 101N – Intro to Archeology
HUMA 102N – Art Appreciation
HUMA 103N – Music Appreciation
HUMA 104N – Jazz and Its Roots
HUMA 120N – Intro to Theatre

Social Science
ANTH 108N – Intro to Archeology
COMM 101N – Intro to Media Studies
COMM 102N – Principles of Communication
ECON 201N – Microeconomics
ECON 202N – Macroeconomics
GEOG 130N – Human Geography

SAO 101N – Intro to Political Science
POLS 102N – American Gov’t and Politics
POLS 210N – State and Local Government
POLS 215N – World Affairs
POLS 220N – American Politics and Mass Media
PSYC 101N – Intro to Psychology
PSYC 130N – Human Relations
PSYC 201N – Human Growth and Development
SOCI 101N – Intro to Sociology
SOCI 201N – Contemporary Social Problems
SOCI 228N – Social Inequalities

Humanities
ENGL 105N – Intro to Literature
ENGL 215N – Literature by American Women
ENGL 220N – Honors Contemporary Dramatic Literature
ENGL 230N – British Literature I
ENGL 231N – British Literature II
ENGL 240N – American Literature I
ENGL 241N – American Literature II
ENGL 255N – Honors Humor in Literature and Other Media
HIST 262N – Movies & Social History of USA
HUMA 101N – Intro to the Humanities
HUMA 107N – World Religions
HUMA 140N – American Cinema
HUMA 145N – American Popular Culture
HUMA 220N – Classic Myths in Western Civilization
PHIL 130N – Honors Ancient Greek Philosophy
PHIL 109N – Intro to Philosophy

Writing Intensive
ENGL 101N – College Composition
ENGL 102N – Writing About Literature
ENGL 105N – Intro to Literature
ENGL 235N – Poetry Workshop
ENGL 250N – Honors Advance Creative Writing

UNH Manchester Bachelor Degree Requirements

To graduate from UNH, students must fulfill course requirements in the following areas: major courses, University Discovery Program courses and electives, totaling 128 credits.

Discovery Program Courses

UNH’s Discovery Program builds each student’s foundation in general education. To fulfill the Discovery Program, students must take the following courses: one inquiry course1 (or INQ attribute course); one course in writing skills; one course in quantitative reasoning; as well as one 400- to 600-level course from each of the following Discovery Program categories: Biological Science (BS); Physical Science (PS); Environment, Technology and Society (ETS); Fine and Performing Arts (FPA); Historical Perspectives (HP); Humanities (HUMA); Social Science (SS) and World Cultures (WC).3

1. The Inquiry requirement shall be waived for students with 26 or more transfer credits.
2. One of these two courses must have a lab component.
3. Also may be satisfied by approved study abroad programs.

* Course titles, names and/or sequencing are subject to change.

October 28, 2016