# Academic Rhode Map for BS Artificial Intelligence Major
# at Rhode Island College

- This Rhode Map is a suggested pathway to graduation in 8 semesters
  - There are other valid pathways available to graduation - part time, summer/early spring classes, etc.
- The left column contains the suggested courses for each semester, the right column contains notes for the course and about progress towards graduation
- Some courses might not be offered during the semester shown on the map
  - In these cases, courses listed in future semesters can be substituted if their prerequisites have been satisfied
  - Your advisor can help you determine which courses can be used during your appointment each semester
- This Rhode Map is designed primarily with incoming freshmen in mind and assumes a Fall start
  - Transfer students can also use it as a guide, knowing that their transfer credits may have satisfied some requirements. Academic advisors are available to answer questions about how these will affect the program
  - Students starting in the spring may need to adjust based on class offerings and availability

## GENERAL EDUCATION REQUIREMENTS CHECKLIST

| | | |
|---|---|---|
| **FYW 100 –** Taken in first year (Cannot be used as elective) | **Distribution Courses -** <br><br> One from each category | **Math (M) -** Suggested in first year <br> -Satisfied by MATH 212 |
| | | **Arts (A)** |
| **FYS 100 –** Taken in first year (Cannot be used as elective) | | **History/Philosophy (HP)** |
| | | **Literature/Language (LL)** |
| | | **Natural Science (NS)** <br> -Satisfied by cognate science requirement |
| **Connections –** Taken after FYW & FYS | | **Social & Behavioral Sciences (SB)** |
| | | **Elective(s) for 40 total Gen Ed credits (E)** |

## MAJOR REQUIREMENTS CHECKLIST

| | |
|---|---|
| BUSI 100 Introduction to Business at RIC | ***THREE* courses from Machine Learning Focus areas:** <br> CSCI 348 Artificial Intelligence in Gaming <br> CSCI 443 Natural Language Processing <br> CSCI 444 Image Processing and Computer Vision <br> CSCI 445 Reinforcement Learning and Autonomous Systems <br> CSCI 446 Cognitive Robotics |
| CSCI 141 Application and Impact of Artificial Intelligence | |
| CSCI 211 Computer Programming and Design | |
| CSCI 209 Programming Implementation of Discrete Structures | |
| CSCI 212W Data Structures | |
| CSCI 342W Social and Ethical Issues in Technology | ***ONE* course from Data Science Focus Area:** <br> CIS 470 Data Analytics <br> CIS 472 Data Visualization <br> DATA 245 Principles of Data Science <br> DATA 345 Applied Linear Algebra for Statistical Learning |
| CSCI 427 Artificial Intelligence Foundations | |
| CSCI 428 Machine Learning | |

### COGNATES

| | | |
|---|---|---|
| MATH 212 Calculus I | | |
| MATH 240 Statistical Methods I | | |
| **Choose a TWO COURSE sequence from:** | | |
| BIOL 111 Introductory Biology I <br> BIOL 112 Introductory Biology II | CHEM 103 General Chemistry I <br> CHEM 104 General Chemistry II | PHYS 101 Physics for Science and Mathematics I <br> PHYS 102 Physics for Science and Mathematics II |

## Graduation Requirements:

- **Completion of General Education Requirements —** See table above
- **Completion of Major Requirements —** See table above
- **BUSI 100 or Equivalent (eg RIC 100) —** Taken in first year
- **College Math Milestone —** Satisfied by placement exam or completion of MATH 010
- **College Writing Competency —** Satisfied by FYW 100 with a minimum grade of C
- **Minimum 120 Credit Hours —** At least 30 credits at RIC (of which 15 from major, including 12 at 300 or 400 level)
- **Minimum GPA —** 2.0 overall

**The total credit count for the major is 54 credits, and 40 credits for General Education. 12 Gen. Ed. credits for M, NS and Elective can double count, so the program could be completed in 82 credits.**

# Academic Rhode Map for BS Artificial Intelligence Major at Rhode Island College

| SEMESTER 1 | CR | | SEMESTER 1 NOTES |
|---|---|---|---|
| CSCI 141 Application and Impact of Artificial Intelligence | 4 | | |
| CSCI 211 Computer Programming and Design | 4 | | Prereq = Math competency completed |
| MATH 240 Statistical Methods I | 4 | | Prereq = completed college mathematics milestone or appropriate score on the mathematics placement exam |
| FYW 100 First Year Writing **OR** FYS 100 First Year Seminar | 4 | | FYW Directed Self Placement exam |
| BUSI 100 Introduction to Business at RIC | 2 | | Exempt if taking/taken COLL 101, COLL 150, HONR 150, RIC 100 |
| **Requirements and GPA** | | | *Aim for 16 earned credits (While 12 is fulltime, 16 credits are preferred to stay on track to graduate in 4 years) Math competency completed. Minimum 2.0 GPA* |
| **# CREDITS EARNED** | 18 | | *By October, make appointment w/ advisor to discuss schedule for next semester* |

| SEMESTER 2 | CR | | SEMESTER 2 NOTES |
|---|---|---|---|
| CSCI 212 Data Structures | 4 | | Prereq = CSCI 211 |
| CSCI 209 Programming Implementation of Discrete Structures | 4 | | Prereq = CSCI 211 |
| General Education Course - Any but Math (M) or Natural Science (NS) | 3-4 | | Gen Ed Math (M) satisfied by MATH 212 Natural Science (NS) satisfied by |
| FYW 100 First Year Writing **OR** FYS 100 First Year Seminar | 4 | | |
| **Requirements and GPA** | | | *Need a minimum of 30 earned credits, with minimum of 2.0 GPA overall and in the major* |
| **# CREDITS EARNED** | 15 -16 | | *By March, make appointment w/ advisor to discuss schedule for next semester* |

| SEMESTER 3 | CR | | SEMESTER 3 NOTES |
|---|---|---|---|
| CSCI 427 Artificial Intelligence | 4 | | Prereq = MATH 240 and CSC212W |
| 300 level or above CIS, CSCI, or DATA Course | 4 | | Prereqs vary —check catalog |
| MATH 212 Calculus I | 4 | | Prereq = MATH 209 or appropriate score on placement exam Satisfies Gen Ed Math (M) |
| General Education Course (any still needed) | 3-4 | | |
| **Requirements and GPA** | | | *Need minimum of 45 earned credits, with minimum of 2.0 GPA overall and in the major* |
| **# CREDITS EARNED** | 16 | | *By October, make appointment w/ advisor to discuss schedule for next semester* |

# Academic Rhode Map for BS Artificial Intelligence Major
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| SEMESTER 4 | CR | | SEMESTER 4 NOTES |
|---|---|---|---|
| CSCI 428 Machine Learning | 4 | | Prereq = CSCI 427 |
| Choose **ONE** course from Data Science Focus Area | 4 | | Prereqs vary—see catalog. Not all are offered every semester, see catalog for which semester is likely. Need to mcomplete ONE from Data Science focus area list |
| General Education Course (any still needed) | 3-4 | | |
| Free Elective or Course for Minor or Math Course | 4 | | |
| **Requirements and GPA** | | | *Need minimum of 60 earned credits, with minimum of 2.0 GPA overall and in the major* |
| **# CREDITS EARNED** | 15 -16 | | *By March, make appointment w/ advisor to discuss schedule for next semester* |

| SEMESTER 5 | CR | | SEMESTER 5 NOTES |
|---|---|---|---|
| CSCI 342W Social and Ethical Issues in Technology | 4 | | Prereq = Junior standing or 45 credits |
| Choose **ONE** course from Machine Learning Focus Areas | 4 | | Prereqs vary—see catalog. Not all are offered every semester, see catalog for which semester is likely. Need to complete **THREE** from ML focus area list |
| Connections (Gen Ed-C) | 4 | | Prereqs = FYW and FYS |
| General Education Course (any still needed) | 3-4 | | |
| **Requirements and GPA** | | | *Aim for minimum of 80 earned credits, with minimum of 2.0 GPA overall and in the major* |
| **# CREDITS EARNED** | 15 -16 | | *By October, make appointment w/ advisor to discuss schedule for next semester* |

| SEMESTER 6 | CR | | SEMESTER 6 NOTES |
|---|---|---|---|
| *Choose one course from Machine Learning Focus Areas* | 4 | | Prereqs vary—see catalog. Not all are offered every semester, see catalog for which semester is likely. Need to complete THREE from ML focus area list |
| Choose ONE from BIOL 111 Introductory Biology I CHEM 103 General Chemistry I or PHYS 101 Physics for Science or Mathematics I | 4 | | BIOL 111 or CHEM 103 prereq = Math Milestone PHYS 101 prereq = MATH 120 or appropriate score on Mathematics Placement Exam  Any will satisfy Gen Ed Natural Science (NS) |
| Free Elective or Course for Minor or Math Course | 4 | | |
| Free Elective or Course for Minor or Math Course | 4 | | |
| **Requirements and GPA** | | | *Aim for minimum of 96 earned credits, with minimum of 2.0 GPA overall and in the major. Apply for degree audit online through MyRIC* |
| **# CREDITS EARNED** | 16 | | *By March, make appointment w/ advisor to discuss schedule for next semester* |

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| SEMESTER 7 | CR | | SEMESTER 7 NOTES |
|---|---|---|---|
| Choose **ONE** course from Machine Learning Focus Areas | 4 | | Prerequisites = CSCI 209 (for CSCI 348) or CSCI 428 (for CSCI 445 and CSCI 446) |
| Free Elective or Course for Minor or Math Course | 4 | | |
| General Education Course (any still needed) | 3-4 | | |
| **ONE to complete two course NS sequence:** BIOL 112 Introductory Biology II CHEM 104 General Chemistry II PHYS 102 Physics for Science or Mathematics II | 4 | | Prereq for each = the first in its sequence, so take the same subject |
| **Requirements and GPA** | | | *Aim for minimum of 112 earned credits, with minimum of 2.0 GPA overall and in the major* |
| **# CREDITS EARNED** | 15 -16 | | *By October, make appointment w/ advisor to discuss schedule for next semester* |

| SEMESTER 8 | CR | | SEMESTER 8 NOTES |
|---|---|---|---|
| Free Elective or Course for Minor or Math Course | 4 | | |
| Free Elective or Course for Minor or Math Course | 4 | | |
| Free Elective or Course for Minor or Math Course | 4 | | |
| Free Elective or Course for Minor or Math Course | 4 | | |
| **Requirements and GPA** | | | *Need minimum of 128 earned credits, with minimum of 2.0 GPA overall and in the major* |
| **# CREDITS EARNED** | 16 | | *Attend Gradfest and Commencement* |

**NOTE:**

- The total number of credits needed for the major, general education, and other requirements may be less than the 120 required for graduation.  Those remaining credits can be satisfied with electives, or they can be used toward a second major or minor which could be very useful.

  o Along with your advisor, this Rhode Map can help you determine if a second major or minor could fit into your plan

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|---|---|
| Approved by Department Chair: Suzanne Mello-Stark | Date: 12/2/2024 |
| Approved by Undergraduate Curriculum Committee | Date: 11/8/2024 |
| Revised: | |