

Tri-C Associate of Arts -- to -- CSU Bachelor of Science in Data Science Degree Pathway

SUGGESTED SEQUENCE AT TRI-C

First Year

Fall Semester	Credits		Spring Semester	Credits
ENG 1010/101H College Composition I (ENG 100 or 101)	3		ENG 1020/102H College Composition II (ENG 102, 108 or 109)	3
MATH 1610/161H Calculus I (MTH 181)	5		MATH 1620/162H Calculus II (MTH 182)	5
GEN 1070 1st Yr Success Sem. (if needed) (part of INQ 170)	0-1		PHYS 2310 General Physics I (PHY 241)	5
IT 1051 Introduciton to Programming (CIS 151)	3		IT 2651 Object-Oriented Programming (CIS 260)	3
OT36 Arts & Humanities	3			
IT 1026 Introduction to Computing	3			
Semester Total	17		Semester Total	16

Second Year

Fall Semester	Credits		Spring Semester	Credits
PHYS 2320 General Physics II (PHY 242)	5		IT 2660 Data Structures & Algorithms (CIS 265)	4
MATH 2010 Introduction to Discrete Math (MTH 220)	4		MET 2430 Engineering Probability & Statistics (STA 323)	3
MATH 2310/231H Calculus III (MTH 281 or 283)	4		OT36 Arts & Humanities	3
COMM 1010/101H Fund. of Speech Communication	3		OT36 Social & Behavioral Science	3
			American Civic Literacy (OT36 Social & Behav. Science)*	3
Semester Total	16		Semester Total	16
			Total minimum credits earned at Tri-C	65
			Associate of Arts Degree Awarded	

SUGGESTED SEQUENCE AT CSU

Third Year

Fall Semester	Credits		Spring Semester	Credits
DSA 230 Introduction to Data Science I	3		STA 431 Categorical Data Analysis	3
STA 347 Applied Statistics	3		DSA 330 Introduction to Data Science II (WAC)	3
CIS 340 Systems Programming	3		STA 400 Data Visualization	3
CIS 430 Database Concepts	3		DSA 460 Data Mining	3
CIS 390 Introduction to Algorithms	3		CIS 467 Artificial Intelligence	3
MTH 288 Linear Algebra	3			
Semester Total	18		Semester Total	15

Fourth Year

Fall Semester	Credits		Spring Semester	Credits
DSA 493 Senior Design I (WAC)	2		DSA 494 Senior Design II	3
CIS 475 Computer Security	3		DSA Major Elective	3
DSA 469 Big Data Processing Systems	3		DSA Major Elective	3
PHL 216 AI & Data Ethics	3		DSA Major Elective	3
ESC 282 Engineering Economy	3			
DSA Major Elective	3			
Semester Total	17		Semester Total	12
			Total cumulative credits earned at CSU	62
			Bachelor of Science in Data Science Degree Awarded	127

This Transfer Pathway completes the Associate of Arts degree, which must total at least 60 semester credits and includes the Ohio Transfer 36 (OT36) credits, which are approved Tri-C general education requirements. OT36 details can be found at <https://transfercredit.ohio.gov/initiatives-upd/ohio-transfer-36>

Assumptions: college-level readiness in MATH (eligible to register for Calculus I) and ENG; no Foreign Language Deficiency (FLD).

CSU Requirements:

Grade restriction: Data Science students are limited to a total of two grades of "D" in DSA, CIS, and STA courses.

CSU requires a minimum of 120 total credit hours for graduation. At least 30 credits must be completed in-residence at CSU. At least 24 of the in-residence credits must be completed at the upper division (300/400) level. An overall total of 42 upper division (300/400) level credits are required. Students deficient in total credits or in-residence credits must take additional elective credits to meet the minimum requirements. Depending upon other elective choices made, students may not need as many general electives as indicated above, or may need additional electives.

INQ 170 is required for all engineering, technology, and computer science majors, and meets the Core Curriculum requirement for Inquiry Launch. ESC 120 is required in place of INQ 170 in the following cases: (a) transfer students; however, those who have had co-op experience in engineering/computer science and/or have transferred 12 credits of engineering/computer science courses can petition to waive ESC 120; (b) students who, as freshmen at CSU, started in another major and completed an Inquiry Launch course different from INQ 170; (c) Honors students who take the Honors Inquiry Launch course. Neither INQ 170 nor ESC 120 is required for transfer students with an Associates of Applied Science degree.

For students who have earned an Associate of Arts degree from Tri-C, the following general education categories will be considered met: Inquiry Launch, Finding Your Voice (First Writing), Research & Professional Writing (Second Writing), Quantitative & Formal Reasoning (Math, Statistics, and Logic), American Civic Literacy (see footnote below), Human Culture & Creativity (Arts & Humanities), Global Human Perspectives (Arts & Humanities), Scientific Inquiry (Natural Science), Scientific Investigations (Natural Science Lab), Society & Human Behavior (Social and Behavioral Science), Complexities of a Pluralistic Society (Arts & Humanities or Social and Behavioral Science), and Data & Digital Literacy (Social and Behavioral Science). Students would still be required to take at least two Writing Across the Curriculum (WAC) courses (including one in the major) and complete a Capstone Experience in the major. The WAC and Capstone Experience requirements are typically met with upper-division courses. Students who do not complete the Associate of Arts degree are responsible for the completion of the entire General Education Requirements at Cleveland State University.

*American Civic Literacy is a mandatory course to receive a Bachelor's degree. If the course is not taken and passed at Tri-C, it must be taken and passed at CSU.

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This map represents one example of how to complete the AS and BS degrees. Students should work closely with counselors/advisors at both institutions to discuss options.