

# Curriculum Report: Computer Science

## Overview

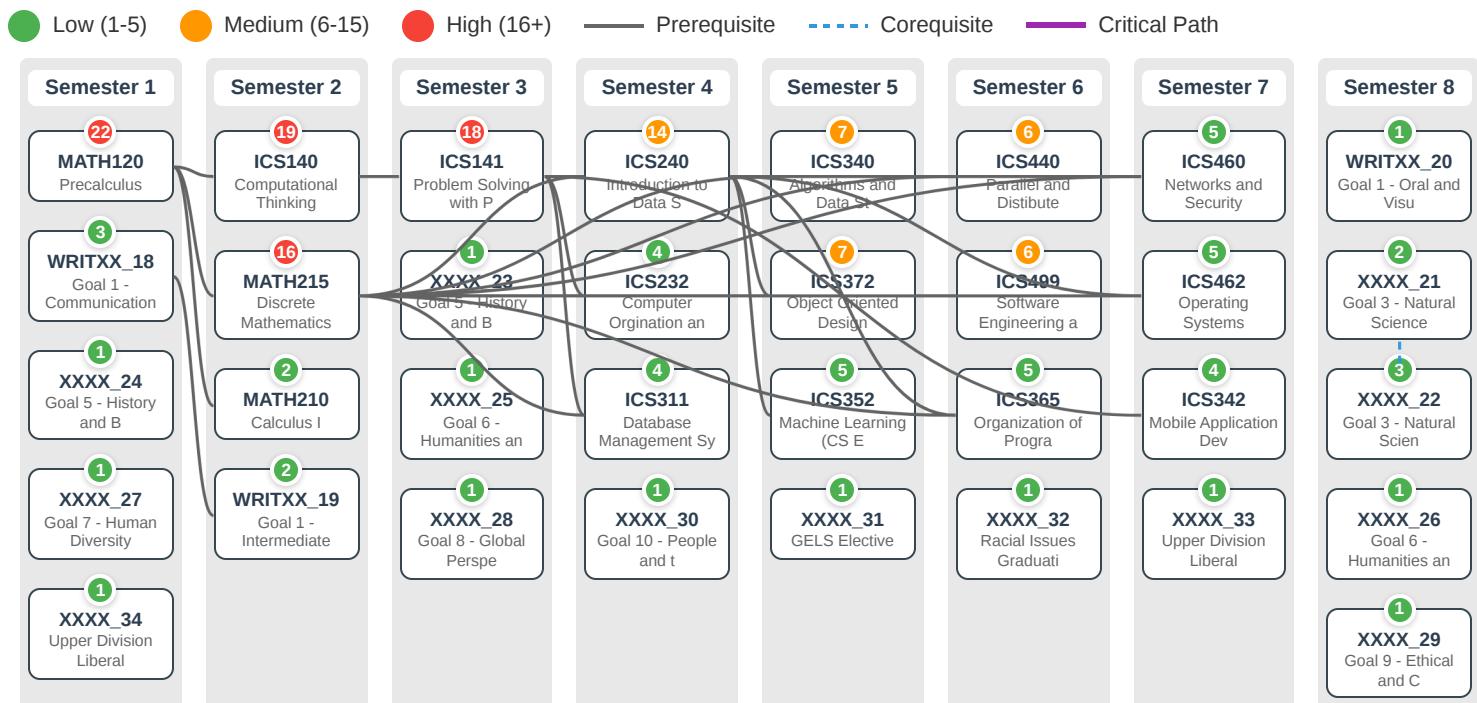
INSTITUTION <b>Metro State University</b>	DEGREE <b>BS Computer Science</b>	SYSTEM <b>semster</b>	YEARS <b>4</b>
CIP CODE <b>11.07</b>	TOTAL CREDITS <b>120.0</b>	TOTAL COURSES <b>34</b>	

## Complexity Metrics

TOTAL COMPLEXITY <b>172</b>	LONGEST DELAY <b>6</b> ICS140	HIGHEST CENTRALITY <b>58</b> ICS240
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**Critical Path:** MATH120 → ICS140 → ICS141 → ICS240 → ICS340 → ICS440

## Curriculum Graph



## Term Schedule

Term	Courses	Credits
1	MATH120 Precalculus WRITXX_18 Goal 1 - Communication Introductory XXXX_24 Goal 5 - History and Behavioral Science XXXX_27 Goal 7 - Human Diversity XXXX_34 Upper Division Liberal Studies	17.0
2	ICS140 Computational Thinking with Programming MATH215 Discrete Mathematics MATH210 Calculus I WRITXX_19 Goal 1 - Intermediate Writing	15.0
3	ICS141 Problem Solving with Programming XXXX_23 Goal 5 - History and Behavioral Science XXXX_25 Goal 6 - Humanities and Fine Arts XXXX_28 Goal 8 - Global Perspective	13.0
4	ICS240 Introduction to Data Structures ICS232 Computer Organization and Architecture ICS311 Database Management Systems XXXX_30 Goal 10 - People and the Environment	15.0
5	ICS340 Algorithms and Data Structures ICS372 Object Oriented Design and Implementation ICS352 Machine Learning (CS Elective) XXXX_31 GELS Elective	16.0
6	ICS440 Parallel and Distributed Algorithms ICS499 Software Engineering and Capstone Project ICS365 Organization of Programming Languages XXXX_32 Racial Issues Graduation Requirement	15.0
7	ICS460 Networks and Security ICS462 Operating Systems ICS342 Mobile Application Development (CS Elective) XXXX_33 Upper Division Liberal Studies	16.0
8	WRITXX_20 Goal 1 - Oral and Visual Communication XXXX_21 Goal 3 - Natural Science XXXX_22 Goal 3 - Natural Science Lab XXXX_26 Goal 6 - Humanities and Fine Arts XXXX_29 Goal 9 - Ethical and Civic Responsibility	13.0

## Course Metrics

Course	Name	Cr	Cpix	Blk	Dly	Ctr
MATH120	Precalculus	4.0	22	16	6	0
ICS140	Computational Thinking with Programming	4.0	19	13	6	44
ICS141	Problem Solving with Programming	4.0	18	12	6	44
MATH215	Discrete Mathematics	4.0	16	11	5	52
ICS240	Introduction to Data Structures	4.0	14	8	6	58
ICS340	Algorithms and Data Structures	4.0	7	1	6	15
ICS372	Object Oriented Design and Implementation	4.0	7	1	6	15
ICS440	Parallel and Distributed Algorithms	4.0	6	0	6	0
ICS499	Software Engineering and Capstone Project	4.0	6	0	6	0
ICS365	Organization of Programming Languages	4.0	5	0	5	0
ICS460	Networks and Security	4.0	5	0	5	0
ICS462	Operating Systems	4.0	5	0	5	0
ICS352	Machine Learning (CS Elective)	4.0	5	0	5	0
ICS232	Computer Organization and Architecture	4.0	4	0	4	0
ICS311	Database Management Systems	4.0	4	0	4	0
ICS342	Mobile Application Development (CS Elective)	4.0	4	0	4	0
WRITXX_18	Goal 1 - Communication Introductory	3.0	3	1	2	0
XXXX_22	Goal 3 - Natural Science Lab	1.0	3	1	2	0
MATH210	Calculus I	4.0	2	0	2	0
WRITXX_19	Goal 1 - Intermediate Writing'	3.0	2	0	2	0
XXXX_21	Goal 3 - Natural Science	3.0	2	0	2	0
WRITXX_20	Goal 1 - Oral and Visual Communication	3.0	1	0	1	0
XXXX_23	Goal 5 - History and Behavioral Science	3.0	1	0	1	0
XXXX_24	Goal 5 - History and Behavioral Science	3.0	1	0	1	0
XXXX_25	Goal 6 - Humanities and Fine Arts	3.0	1	0	1	0
XXXX_26	Goal 6 - Humanities and Fine Arts	3.0	1	0	1	0
XXXX_27	Goal 7 - Human Diversity	3.0	1	0	1	0
XXXX_28	Goal 8 - Global Perspective	3.0	1	0	1	0
XXXX_29	Goal 9 - Ethical and Civic Responsibility	3.0	1	0	1	0
XXXX_30	Goal 10 - People and the Environment	3.0	1	0	1	0
XXXX_31	GELS Elective	4.0	1	0	1	0
XXXX_32	Racial Issues Graduation Requirement	3.0	1	0	1	0
XXXX_33	Upper Division Liberal Studies	4.0	1	0	1	0

Course	Name	Cr	Cplx	Blk	Dly	Ctr
XXXX_34	Upper Division Liberal Studies	4.0	1	0	1	0

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