

FACULTY AGENDA ITEM

Date: 2/19/2023

Submitted by: Nan Sun, x. 2102

SUBJECT: Significant Program Edits – Computer Information Science with Data Science Concentration, BS

Description / Rationale: To conform to the new general education requirements and to ensure the program does not exceed 120 total hours. Removed EN 208, CN 150 and MA 152 from program. Added CN 342 as an “or” option to existing CN 340 or CN 341 required course. Removed EC 201 as a required course and added it as an “or” option to EC 200.

Financial Implications: None indicated.

Proposed Effective Date: Fall 2024

Request for Action: *Approval by AAC/.FAC/FS/ Gen Fac, etc*

Approved by: AAC on 2/12/2024

FAC on date

Faculty Senate on date

Attachments Yes ☒ No ☐

Program Change Request

Date Submitted: 10/02/23 10:17 am

Viewing: **CM-DS : CM: Data Science: Science BS**

Last approved: 05/09/23 11:15 am

Last edit: 02/13/24 9:47 am

Changes proposed by: Nan Sun (nan.sun)

Catalog Pages Using this Program [BS, Computer Information Science with Data Science Concentration](#)

Change Type	Significant
Summarize Changes and Include Rationale	To conform to the new general education requirements and to ensure the program is close to 120 total hours.

General Information

Effective Catalog Edition	2024-2025
Department	Computer Information Sciences
College	College of Arts and Sciences
Division	Natural Science & Mathematics
Degree Level	Undergraduate
Program Title	CM: Data Science : Science BS
Degree to be Offered	Bachelor of Science (BS)
Is this program offered completely online?	No
Does this program lead to a teaching certification?	No
Program Code	CM-DS
Is this program an interdisciplinary program?	No
CIP Code	11.0101 - 11.0101
Modality	Hybrid

Admission and Curriculum

Admission Criteria
Total Number of Semester Credit Hours for the Degree
Curriculum

In Workflow

1. Acad Ops
2. CM Chair
3. NSM Chair
4. CA Dean
5. CFCCC Chair
6. Assoc Dean CFC
7. CA Assoc Dean
8. Governance Check
9. Final Acad Ops
10. AA Committee
11. Faculty Senate
12. General Faculty
13. WUBOR
14. Final Acad Ops
15. Registrar

Approval Path

1. 10/02/23 10:28 am
Holly Broxterman (holly.broxterman):
Approved for Acad Ops
2. 10/02/23 10:45 am
Nan Sun (nan.sun):
Approved for CM Chair
3. 10/02/23 10:46 am
Andrew Herbig (andrew.herbig):
Approved for NSM Chair
4. 10/02/23 4:52 pm
Kelly Erby (kelly.erby):
Approved for CA Dean
5. 12/03/23 3:03 pm
Bruce Mactavish (bruce.mactavish):
Approved for CFCCC Chair
6. 12/11/23 3:57 pm
Kelly Erby (kelly.erby):
Approved for Assoc Dean CFC
7. 02/07/24 5:41 pm
Kelly Erby (kelly.erby):
Approved for CA Assoc Dean
8. 02/08/24 8:49 am
Holly Broxterman (holly.broxterman):
Approved for Governance Check
9. 02/08/24 8:50 am
Holly Broxterman (holly.broxterman):

Approved for Final
Acad Ops
10. 02/13/24 9:47 am
Holly Broxterman
(holly.broxterman):
Approved for AA
Committee

History

1. Apr 21, 2022 by
clmig-jwilling
2. Jul 15, 2022 by
Steve Luoma
(steven.luoma)
3. Sep 30, 2022 by
Holly Broxterman
(holly.broxterman)
4. May 4, 2023 by
Holly Broxterman
(holly.broxterman)
5. May 4, 2023 by
Holly Broxterman
(holly.broxterman)
6. May 5, 2023 by
Holly Broxterman
(holly.broxterman)
7. May 9, 2023 by
Holly Broxterman
(holly.broxterman)

Degree Requirements

In addition to the requirements stated below, students must complete 34-35 hours of General Education, all requirements for a Bachelor of Science degree, and any additional hours needed to reach the minimum 120 credit hours required for graduation. Some of the courses below may also fulfill general education or other degree requirements. Please see your advisor for more information.

Required Courses Inside Department ^{1,2}

CM 111	Introduction to Structured Programming	4
CM 231	Computer Organization/Assembler Language	3
CM 245	Contemporary Programming Methods	3
CM 261	Networked Systems	3
CM 307	Data Structures & Algorithmic Analysis	3
CM 322	Operating Systems	3
CM 331	Artificial Intelligence	3
or CM 332	Data Mining	
CM 333	Software Engineering	3
CM 334	Modeling with VBA/Excel	3
CM 336	Database Management Systems	3
CM 465	Computer Information Science Capstone Project	3
CM XXX	Any CM electives	6
CM 3XX	Upper Division CM electives	6

Correlated Courses

Subtotal

46

Computer Information Science Required

Required Courses Outside Department

BU 342	Organization & Management	3
or BU 346	Organizational Behavior	
EN 208	Professional Writing	3
CN 150	Public Speaking	3
CN 340	Interviewing	3
or CN 341	Persuasive Speaking	
or CN 342	Communication-Teams and Groups	
EC 200	Principles of Microeconomics	3
or EC 201	Principles of Macroeconomics	
EC 201	Principles of Macroeconomics	3
MA 140	Statistics	3
MA 151	Calculus & Analytic Geometry I	5
MA 152	Calculus & Analytic Geometry II	5
MA 206	Discrete Mathematics for Computing	3
MA 301	Linear Algebra	3
MA 346	Regression Analysis	3
or MA 342	Statistical Computing	
MA 384	Theory of Interest	3
or MA 344	Mathematical Statistics I	
PH 220	Symbolic Logic	3
Subtotal		32
Computer Information Science Electives		
Total Hours		78

1
= A 30-hour concentration in the Division of Natural Sciences and Mathematics is required. If the concentration is in Math, the student must take MA 152 Calculus & Analytic Geometry II. At least 20 of these hours must be selected from one discipline.

2
= Transfer students must complete at least nine upper division hours in computer information sciences from Washburn University.

~~Degree Requirements Students must also meet the Bachelor of Science University Requirements. A 30-hour concentration in the Division of Natural Sciences and Mathematics is required. If the concentration is in Math, the student must take MA 152 Calculus & Analytic Geometry II. At least 20 of these hours must be selected from one discipline. Transfer students must complete at least nine upper division hours in computer information sciences from Washburn University.~~

Pathway

Faculty Workload Analysis (describe how the course offering schedule and anticipated enrollments correlate to faculty lines)

Supplemental Files

Reviewer

Holly Broxterman (holly.broxterman) (02/13/24 9:47 am): Approved by Academic Affairs

Comments

Committee in 2/12/2024 meeting.