April 9, 2015

To: Dean Van Galen, Chancellor
    116 North Hall
    University of Wisconsin-River Falls

From: David P. Rainville, Chair
       Faculty Senate
       University of Wisconsin-River Falls

Re: UWRF Faculty Senate Motion 2014-15/84

At the April 8 2015 meeting of the University of Wisconsin-River Falls Faculty Senate, motion 2014-15/84 was passed and is effective immediately. The motion is forwarded to you for your action.

A motion from the Academic Program and Policy Committee (James Zimmerman, Chair) to approve the new major in Data Science

Approved √

Disapproved

Dean Van Galen, Chancellor

4/14/15 Date
TRANSMITTAL for UNDERGRADUATE PROGRAMS:
Changes or Proposals

I. INFORMATION:

1. Program Title: Data Science
2. Department(s): Computer Science and Information Systems
3. College(s): CBE
4. Proposal prepared by: Hossein Najafi Date: 12/8/2014
5. Check all that apply
   - [ ] New program
   - [ ] Change in course name
   - [ ] Change in major
   - [ ] Change in course content
   - [ ] Existing program
   - [ ] Change in number of credits
   - [ ] Change in minor
   - [ ] Change in emphasis/option
6. Other Programs/Departments Consulted (Requires letters of comment from all Departments or Programs substantially affected):
   - a) Math
   - b) Economics
   - c) Finance/Accounting
   - d) Marketing/MNG
7. Catalog year (and semester) of Implementation:
   - Semester: Spring
   - Year: 2016
8. Have all courses in this program been approved? Yes [ ] No [ ]
   If "No" which courses have not been approved?
9. Attach Request Narrative
   Include in narrative on attached pages a rationale for the requested changes or creation of program:
   Include clarification concerning any courses that have not yet been approved. If requesting a program change also include a listing of course array for both the current and proposed program.
10. UNIT APPROVALS: Requires signatures of all Department Chairs and Deans whose programs will be substantially affected by the changes or proposal. Signature lines for the affected Departments and Colleges (noted in "6" above), are on the addendum to this form. These signatures should be obtained prior to review by all other shared governance levels.

Department Curriculum Committee Chair (optional) __________________________ Signature __________________________ Date 12/8/14

Department/Program Chair __________________________ Signature __________________________ Date 12/8/14

College Curriculum Committee Chair __________________________ Signature __________________________ Date 12/8/14

Dean of College __________________________ Signature __________________________ Date 1-2-15

University Curriculum Cmtt. Chair __________________________ Signature __________________________ Date 02/10/15

Academic Policy & Program Cmtt. Chair __________________________ Signature __________________________ Date 3/14/15

Faculty Senate Chair __________________________ Signature __________________________ Date 4/13/2015

Provost / Vice Chancellor __________________________ Signature __________________________ Date 4/11/15

Chancellor __________________________ Signature __________________________

*NOTE: The master copy of this transmittal & accompanying documents must be filed in the Provost's office upon final approval. The Provost's office will notify all appropriate administrative offices [Registrar, Dean(s), Department Chair(s)] of approvals & necessary actions to implement changes.

Revised December 2012
TRANSMITTAL for UNDERGRADUATE PROGRAMS: Changes or Proposals - Addendum

Signatures of Additional Department & Colleges Affected

Department Chair

Signature

Date 12/4/14

Dean of College
Dawn Hafkai on behalf of Michael Frommueller

Signature

Date 12/10/14

Department Chair
Hamed Tabesh

Dean of College
Dawn Hafkai on behalf of Michael Frommueller

Signature

Date 12/10/14

Department Chair

Dean of College
Dawn Hafkai on behalf of Michael Frommueller

Revised December 2012
### TRANSMITTAL for UNDERGRADUATE PROGRAMS: Changes or Proposals - Addendum

**Signatures of Additional Department & Colleges Affected**

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Revised December 2012
Subject: Statement by Math Department regarding CSIS 334
Date: Tuesday, December 2, 2014 at 12:56:29 PM Central Standard Time
From: Robert Coffman
To: Hossein Najafi, Fernando Delgado
CC: Erick Hofacker, Kathy Tomlinson, Keith Chavey, Laurel Langford, Robert Coffman, Ioana Ghendu, Alexandru Tupan, Arunendu Chatterjee

Dear Hossein,

The Mathematics Department met on Monday, December 1 to discuss the proposed course CSIS 334. The department approved the following statement:

"There is some overlap between these courses and MATH 326 and MATH 327. In these two math courses, as well as in the proposed course CSIS 334, there is instruction on visualizing patterns over time, and on the use of R, both to analyze data sets and to assist in their visualization. The Mathematics Department does not see this overlap as significant, however."

Respectfully submitted,

Bob Coffman, Chair
Department of Mathematics
University of Wisconsin - River Falls
(715) 425-3326
Subject: Statement by Math Department regarding CSIS 239
Date: Tuesday, December 2, 2014 at 12:48:38 PM Central Standard Time
From: Robert Coffman
To: Hossein Najafi, Fernando Delgado
CC: Erick Hofacker, Kathy Tomlinson, Keith Chavey, Laurel Langford, Robert Coffman, Ioana Ghenciu, Alexandru Tapan, Arunendu Chatterjee

Dear Hosseln,

The Mathematics Department met on Monday, December 1 to discuss the course proposal for CSIS 239. The department approved the following statement:

"There is some overlap between these courses and MATH 326 and 327. In these two math courses, as well as in the proposed course CSIS 239, there is instruction on the use of R to analyse data sets and assist in their visualization. The Mathematics Department does not see this overlap as significant, however."

Respectfully submitted,

Bob Coffman, Chair
Department of Mathematics
University of Wisconsin - River Falls
(715) 425-3326
Subject: Data Science Major
Date: Tuesday, December 2, 2014 at 12:43:29 PM Central Standard Time
From: Robert Coffman
To: Hossein Najafi, Fernando Delgado
CC: Erick Hofacker, Kathy Tomlinson, Keith Chavey, Laurel Langford, Robert Coffman, Ioana Ghenciu, Alexandru Tapan, Arunendu Chatterjee

Dear Hossein and Fernando,

The Math Department met on Monday, December 1, and approved the following statement:

"The Math Department supports the proposed Data Major program.

Note that the department feels that it could become problematic to provide the staffing needed for this program from within the current ranks of its tenured faculty as the need for additional sections of core math courses arises."

Respectfully submitted,

Bob Coffman, Chair
Department of Mathematics
University of Wisconsin - River Falls
(715) 425-3326
Dr. Najafi,
The faculty of the Dept. of Management & Marketing is in support of the Data Science Major.

However they, recommend that the Management Cognate be changed to:

Management: (15 Cr – choose from following set of courses)

MNGT 300 - Management and Organizational Behavior (3 Cr)
MNGT 361 - Operations Management (3 cr)
MNGT 318 - Operations Research (3 cr)
MNGT 340 - Ethical Leadership (3 cr)
MNGT 350 - Decision Making (3 cr)
MNGT 365 - Business Process Management (3 cr)

The most basic prerequisite for these courses is admission to CBE.

The Marketing Cognate as proposed is approved. There is a correction however. MKTG 325 is now titled Relationship Selling.

Also, they suggest changing the term "cognate" to something such as "concentration" or "option" believing the the term "cognate" would be unclear to students.

Finally, concerned was voiced about in which department the major is housed and how that may affect CBE's ongoing accreditation.

Darryl W. Miller, Ph.D.
Professor of Marketing
Chair, Dept. of Management & Marketing
University of Wisconsin River Falls
Subject: data science program
Date: Thursday, October 23, 2014 at 4:53:44 PM Central Daylight Time
From: Charles Corcoran
To: Hossein Najafi

The Accounting and Finance Department supports the accounting and finance cognates with the following changes:

Accounting -- remain 15 cr. (new total 18 cr. from which 15 are required). Correct ACCT 356 to read ACCT 322 Intermediate Accounting II; add ACCT 356 Cost Accounting.

Finance -- remain 15 cr. (new total 18 cr. from which 15 are required). Add FINC 360 Financial Derivatives.

Thank you,

Charlie

Charles Corcoran, Ph.D., CFA
Professor and Chair
Dept. of Accounting and Finance
University of Wisconsin - River Falls
w 715.425.3335
m 651.295.0987
Subject: RE: Letter of support
Date: Wednesday, December 10, 2014 at 1:40:05 PM Central Standard Time
From: John Heppen
To: Hossein Najafi

Dear Hossein,

The Department of Geography and Mapping Sciences supports the proposed BS in Data Science program. We in geography are supportive of the GIS cognate and courses and we can fully support and staff the courses for the program.

John Heppen

From: Hossein Najafi
Sent: Tuesday, December 09, 2014 11:51 AM
To: John Heppen
Subject: Re: Letter of support

I think an email would work.

Hossein Najafi, PhD
Computer Science and Information Systems Department, Chair
University of Wisconsin, River Falls
410 S. 3rd St.
River Falls, WI 54022
715-425-3335

From: John Heppen <john.heppen@uwrf.edu>
Date: Monday, December 8, 2014 at 1:17 PM
To: Hossein Najafi <hossein.najafi@uwrf.edu>
Subject: RE: Letter of support

Sure,

Do you want it on letterhead or is an email okay?

John

From: Hossein Najafi
Sent: Monday, December 08, 2014 12:44 PM
To: John Heppen
Subject: Letter of support

John,

Would you please send me an email of support for the data science program. I have one from every other departments. I thought I had one for you, but I cannot find it.
Hello Hossein: The department of Economics met on Monday Nov. 17 and passed the following motion(Walker/Kelly) related to the proposed economics cognate within the data science major. The motion was passed with a vote of 5 in favor and 2 abstention. The motion states that:

“The department of Economics strongly supports the creation of the Data Science major with an understanding that the students with double majors in Data Science and various areas within business, accounting and Economics must satisfy all of the core requirements of the business administration, accounting and economics majors respectively.”

Please note that Econ 201, 202, 301 and 301 will be offered every term during each academic year.

Please let me know if you have any question. Thank you, Hamid
REQUEST FOR AUTHORIZATION TO IMPLEMENT A
BACHELOR OF SCIENCE IN DATA SCIENCE AND PREDICTIVE ANALYTICS
AT UW-RIVER FALLS
PREPARED BY UW-RIVER FALLS

ABSTRACT

The University of Wisconsin-River Falls proposes to establish a Bachelor of Science (B. S.) in Data Science and Predictive Analytics. This program responds to the strategic direction of the university, to student and alumni interest, and to employer and employee interest in the metropolitan St. Croix River Valley region, and the state of Wisconsin. Establishing the program will provide students with a high-quality degree in an emerging interdisciplinary field with high demand and prospects for graduates (whether entering the workforce or seeking graduate/professional school opportunities). The goal of the program will be to provide students with the skill and knowledge sets required to work in solution-oriented contexts, across a number of professional fields and contexts. Graduates of the program will be in high demand as information and data needs continue to grow across nearly all industry sectors. The program will be comprised of 72 to 75 credits, a core of which will be drawn from the Computer Science & Information Systems and Mathematics departments and options from other departments/programs.

PROGRAM IDENTIFICATION

Institution Name
University of Wisconsin-River Falls

Title of Proposed Program
Data Science and Predictive Analytics

Degree/Major Designations
Bachelor of Science

Mode of Delivery
Single institution; combining face-to-face, hybrid (low residency), and online instruction.

Projected Enrollments by Year Five

<table>
<thead>
<tr>
<th>Year</th>
<th>Implementation Year</th>
<th>2nd year</th>
<th>3rd year</th>
<th>4th year</th>
<th>5th year</th>
</tr>
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<tbody>
<tr>
<td>New students admitted</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Continuing students</td>
<td></td>
<td>19</td>
<td>38</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Total enrollment</td>
<td>25</td>
<td>49</td>
<td>73</td>
<td>85</td>
<td>100</td>
</tr>
<tr>
<td>Graduating students</td>
<td></td>
<td></td>
<td>4</td>
<td>15</td>
<td>25</td>
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</table>

The table above identifies the projected enrollment patterns for the program, and attempts to capture variations in first to second; first to third; and graduate rates. However, there is some
elasticity related to graduation rate and time to degree predicated on students entering with dual enrollment or other forms of college credit. While UWRF remains conservative with a 75% first to second year retention rate the university is more optimistic beyond this because it see the program as a unique destination program.

**Tuition Structure**
UW-River Falls has used standard undergraduate tuition pricing and revenue to calculate the tuition structure for the new program. The 2014-15 Wisconsin tuition rate is $267.75 per credit and the plateau tuition (for 12-18 credits) is $3,214.50 per semester.

Minnesota reciprocity tuition is $283.26 and $3,399.12 for the plateau (each semester).

Segregated fees for all full-time undergraduate students are $661.67 per semester for 2014-2015. Depending on actual courses taken, particularly among the elective and cognate lists, there may be additional individual course fees.

**Department or Functional Equivalent**
The proposed program will be managed within the department of computer science and information systems, with an advisory group of faculty from the departments with cognates embedded within the program.

**College, School, or Functional Equivalent**
The proposed program will be housed within the College of Business and Economics.

**Proposed Date of Implementation**
Spring 2016

**INTRODUCTION**

**Rationale and Relation to Mission**
The undergraduate program in data science is a natural outgrowth of the university’s strengths in Computer Science and Mathematics. In addition the first generation of cognate areas also come from strong academic programs that cut across the university’s strengths in the basic and applied sciences as well as professional fields (i.e. business administration areas). UW-River Falls sees its purpose as serving as an access university that provides undergraduate and graduate opportunities to students from the region and beyond. Befitting its purpose, the University of Wisconsin System mission states clearly, “The university provides an excellent environment for learning, emphasizing the importance of faculty-student interaction in classrooms, laboratories, academic advising and co-curricular activities.” As an institution that is part of the University of Wisconsin System University Cluster, UW-River Falls is authorized to offer baccalaureate (and other programs) across the range of liberal arts programs as well as in various professional fields. Consequently, “the university offers liberal arts programs and degrees to meet regional needs in the arts, humanities, mathematics, natural and physical sciences and social and behavioral sciences. The liberal arts also strengthen and broaden programs in the agricultural sciences, teacher education, and business administration.”
The baccalaureate program in data science is consonant with the UW-River Falls’ focused mission—to help prepare students to be productive, creative, ethical, engaged citizens and leaders with an informed global perspective—and supports the first goal, distinctive academic excellence, of the university’s strategic plan (Pathway to Distinction).

Finally, given the focus of the degree program, UW-River Falls predicts that the students and faculty engaged in the curriculum will also be engaged with and support the university’s efforts to partner with entities in the region focused on economic and workforce development.

Need as Suggested by Current Student Demand
Development of the program was encouraged by the common and public messages regarding the need for graduates who can manage data and work with businesses, agencies, and other entities who use large data sets. This initial interest in the possibility of an undergraduate program was then shaped and reinforced by a study conducted by Hanover Research, who was asked to look at student and market demand.

The Hanover Research findings note that data science remains an emerging and interdisciplinary field. However, among its key findings Hanover observes, “

Indicators suggest that the number of data science degree completions is expanding both nationally and regionally. Between 2008 and 2012, completions in programs related to data science, such as Information Sciences/Studies and Data Modeling/Warehousing and Database Administration increased on a yearly basis. Such growth reflects interest in the topics of data science and analytics, and suggests that such programs may also be growing” (p. 3)

The data across disciplines typically associated with areas of data science show general positive growth across the most recent five years for which data was available when the study was conducted.

UW-River Falls is in a border region near a number metropolitan and suburban high schools that are focused on science and mathematics and these would serve as obvious recruitment sites for first-time, first-year students. Similarly, the university has nearly 20 two-year institutions within 50 miles of River Falls and these colleges could provide ready access to students in transfer-ready programs across mathematics, computer science, information science, and decision science fields.

Need as Suggested by Market Demand

In the 2013 report, Game Changers: Five Opportunities for US Growth and Renewal, the McKinsey Global Institute observed that there are several emerging areas that can help drive the US economy, among them McKinsey “identifies game changers in energy, trade, big data, infrastructure, and talent” (p. 1). McKinsey further notes that data (or big data) is not simply an industry unto itself but also a part of a broader opportunity for nearly all industry sectors: “Big data can play a role in raising the productivity of knowledge-intensive manufacturing for export, maximizing infrastructure assets, and facilitating new personalized digital learning tools” (p. 3) and, consequently, “A talent revolution is needed to train tomorrow’s energy engineers and big
data analysts, as well as the skilled workforce needed for a 21st-century knowledge economy” (p. 3). This emphasis on data science and the management of data sets and knowledge is also reinforced in the Hanover Research study:

Several recent news articles and employment reports discuss the growing popularity and demand for data analysts at companies throughout the nation. In a June 2013 article for CNBC, one CEO explains, “The desire on the enterprise side to find truly qualified data scientists has resulted in almost open headcount. It’s probably the biggest imbalance of supply and demand that I’ve ever seen in my career... The talent pool is, at best, probably 20 percent of the demand.”13 The article discusses the high demand for qualified jobseekers in a variety of industries, and notes the high salary offerings for these individuals. (p. 14)

The outlook for data science and the need for graduates with skills and abilities to harness the potential for data use leads Hanover Research to conclude that

Due to this increased focus on data analytics, a 2013 report by Gartner found that IT departments spend approximately $34 billion on big data in 2013, with nearly half of the investments focused on social media analysis and content analysis.15 These statistics indicate that companies across several industries are seeking to hire qualified individuals with an understanding of data analytics and interpretation. (p. 14)

UW-River Falls seeks to offer the baccalaureate degree in data science as a means to contribute to the needs of businesses, large and small, as well as those needs found among service agencies, the military, local, state, and national government. In reviewing the specific demands for the state and region, Hanover Research was able to conclude that “At the state level, all data science-related occupations are projected to grow through 2020, and again over half of these occupations are slated to grow faster than the state average (11.9 percent)” (p. 10). More focused in the region nearer to the UW-River Falls campus, “occupations related to data science are predicted to grow in the west central region of Wisconsin through 2020” (p. 11). For the Twin Cities area, Hanover indicates that “overall, occupations related to data science are projected to grow in the Twin Cities region” (p. 13).

Given the local, regional, and national information, UW-River Falls is confident that the demand for graduates in data science is only going to grow and the field matures and that the present demand warrants pursuing the major.

DESCRIPTION OF PROGRAM

General Structure

The degree program will be built upon the foundation of the university’s general education curriculum and with a substantial core component of lower and upper division mathematics and computer science courses. Students will then be advised to seek a relevant option (area of emphasis) that tracks a particular field of study or professional domain (such as Finance, Geographic Information Systems, Marketing/Management).

Institutional Program Array

The program will fit well with other mathematics, science, and professional disciplines and has the potential to include additional cognates (such as bioinformatics, decision science,
technical communication, computational science). Data science is an interdisciplinary field and thus does overlap with mathematics and computer science. However, the UW-River Falls design is to take advantage of the overlap to offer to something that is a value-added synthesis of a number of strong academic offerings at the University.

There are no other degree programs in Data Science and Predictive Analytics in the University of Wisconsin System.

At the undergraduate level, Hanover Research was able to identify only five programs in data science across the United States:
- Arizona State University
- College of Charleston
- Northern Kentucky University
- The Ohio State University
- University of San Francisco

It appears that these programs were begun in 2011 or later.

**Collaborative Nature of the Program**

There are already discussions and offers to connect the undergraduate program with other UW-River Falls graduate programs as well as those offered by UW-Stout and UW Extension’s collaborative graduate program being developed in data science/data analytics.

**Diversity**

The faculty members involved in the program are committed to inclusivity and diversity and will work with undergraduate admissions to partner with schools that have a high potential for multicultural and disadvantaged students enrollments in the program. The recent and high profile efforts to collaborative with Native American communities will also inform the university’s outreach and engagement. The university has a retention specialist working specifically with diversity populations to assure improved retention and graduation rates.

**Student Learning Outcomes**

A graduate will understand the Big Data phenomenon and its drivers (e.g. Internet of Things), and recognize the challenges of capturing, storage and retrieval of massive data

A graduate will gain knowledge about the API ecosystems and data infrastructure that supports the acquisition, storage, retrieval and analysis of massive data

A graduate will understand the foundations, frameworks and applications of the emerging field of data science and gain skills in applying data-based analytical approach to identify and solve problems

**Program Objective**

To graduate students with a Bachelor of Science degree in Data Science and Predictive Analytics who possess the ability to develop, manage, and analyze data sets across a range of industry and non-profit sectors.
To prepare students to be successful in graduate programs where data science and data analytics are key components of the program.

Assessment of Objectives
Describe Assessments and Objectives

Program Curriculum

Total of 74-75 Credits

Program Core (Total of 60 Cr)

Computer Science and Information Systems (Total Credits 36)

Existing Courses: (21 Credit)

CSIS 161 - programming I (3 Cr)
CSIS 162 - Programming II (3 Cr)
CSIS 215 - Information System (3 Cr)
CSIS 225 – Web Development (3 Cr)
CSIS 235 - Object Oriented Programming (3 Cr)
CSIS 333 - Database Management Systems (3 Cr)
CSIS 237 - Data Structures (3 Cr)

New Courses: (15 Credits)

CSIS 239 - Introduction to Data Science (3 Cr)
CSIS 334 - Data Visualization (3 Cr)
CSIS 339 - Massive data Storage and Retrieval (3 Cr)
CSIS 452 - Applied Machine Learning (3 Cr)
CSIS 488 - Capstone Data Science Practicum Project (3 Cr)

Math (Total Credits 21)

Existing Courses: (21 Cr)

MATH 166 - Calculus I (4 Cr)
MATH 167 - Calculus II (4 Cr)
MATH 236 - Discrete Mathematics (4 Cr)
MATH 256 - Linear Algebra (3 Cr)
MATH 326 - Applied Statistics (3 Cr)
MATH 327 – Applied Regression Analysis (3 Cr)

Economics (Total Credits 3)

Existing Courses (3 Cr)
ECON 426 - Econometrics (3 Cr)

**Elective Options**

Computer Science: Double Major in CSIS

Math: Double Major in Math

**Accounting (Existing Courses): (15 Cr – choose from following set of courses)**

- ACCT 231 - Principles of Accounting I (3 Cr)
- ACCT 232 - Principles of Accounting II (3 Cr)
- ACCT 321 - Intermediate Accounting I (3 Cr)
- ACCT 322 - Intermediate Accounting II (3 Cr)
- ACCT 356 - Cost Accounting (3 Cr)
- ACCT 366 – Accounting Systems (3 Cr)

**Finance (Existing Courses): (15 Cr – choose from following set of courses)**

- ACCT 231 - Principles of Accounting I (3 Cr)
- ACCT 232 - Principles of Accounting II (3 Cr)
- FINC 345 - Managerial Finance (3 Cr)
- FINC 348 - Investment (3 Cr)
- FINC 360 - Financial Derivatives
- FINC 448 - Portfolio Management (3 Cr)

**Management (Existing Courses): (15 Cr – choose from following set of courses)**

- MNGT 300 - Management and Organizational Behavior (3 Cr)
- MNGT 361 - Operations Management (3 Cr)
- MNGT 318 - Operations Research (3 cr)
- MNGT 340 - Ethical Leadership (3 cr)
- MNGT 350 - Decision Making (3 cr)
- MNGT 365 - Business Process Management (3 cr)

**Marketing (Existing Courses): (15 Cr)**

- MKTG 311 - or MKTG 310 - Principles of Marketing (3 Cr)
- MKTG 334 - Internet and Direct Marketing (3 Cr)
- MKTG 365 - Marketing Research (3 Cr)
- MKTG 325 - Relationship Selling (3 Cr)
- MKTG 327 - Sales Analytics (3 Cr)

**Economics (Existing Courses): (12 Cr)**

- Econ 201 - Principles of Microeconomics (3 Cr)
- Econ 202 - Principles of Macroeconomics (3 Cr)
- ECON 301 - Intermediate Microeconomics (3 Cr)
ECON 302 - Intermediate Macroeconomics (3 Cr)

Geographic Information Science (Existing Courses): (15 Cr – No new courses)

Required Courses (9 Cr)

- Geography 250 Introduction to Geographic Information Science (3 Cr)
- Geography 360 Geographic Information Systems: Theory and Methods (3 Cr)
- Geography 460 Geographic Information Systems: Analysis and Modeling (3 Cr)

Electives Courses (Choose 6 Cr)

- Geography 351 Map Design (3 Cr)
- Geography 365 Quantitative Techniques (3 Cr)
- Geography 366 Field Methods and GPS (3 Cr)
- Geography 368 Digital Image Processing (3 Cr)
- Geography 455 Advanced Map Design (3 Cr)

Projected Time to Degree

The projected time to degree for full-time students is four years and students should be able to complete all university and program requirements at or slightly above the 120-credit target. Transfer students may vary significantly but should complete the program in two to three years after transferring to UW-River Falls. The university will seek articulation agreements as warranted to facilitate student recruitment and timely graduation.

Program Review Process

The program will be reviewed every six years, and annual performance data, including enrollment, revenue, and costs, will be uploaded into the university’s program prioritization process and system.

Institutional Review

UW-River Falls employs a rigorous approach to course and program proposals. Substantive course changes and new course proposals emanate from departments and go through appropriate college curriculum committee review before being evaluated by university level general education and/or undergraduate curriculum committees. New programs are reviewed at the collegiate level before going to the curriculum committee and then the academic program and planning committee. The Faculty Senate then reviews and votes on all program proposals before being approved by the Provost and Chancellor.

The UW-River Falls’ academic deans and the Chancellor’s cabinet reviewed the specific proposal for Data Science and Predictive Analytics at the entitlement stage.

Accreditation

At present there are no plans to seek accreditation, though as the discipline emerges there may be an opportunity to seek ABET accreditation.