



COURSE SYLLABUS

DAC 480
Applied Analytics Project
Fall 2019

1. COURSE INFORMATION

1.1. Instructor Information

Instructor:	Eduardo Rodriguez
Office:	CPS 416
Physical Office Hours:	Mo and We 11:00 -12:00 and 1:00 to 1:30 PM and by appointment
E-mail:	Eduardo.rodriguez@uwsp.edu

1.2. Course Information

Course Description:	This course helps the students to synthesize their knowledge and gain further insights through research investigation or practical exploration. It provides an overview of strategies for effective problem investigation and solution through the complete analytics process. Research methodology will be studied and applied as part of suggesting a solution to a problem. Writing and formatting techniques will also be explored and applied as a communication tool for cataloging the investigation and recommending the solution.
Credits:	4
Prerequisites:	Good standing - approval

1.3. Textbook & Course Materials

Required Text:	<ul style="list-style-type: none"> Instructor's material
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1.4. Master Course Table

Week	Activity sequence	Main Topic Deliverable
2-Sep	Aspects of formal research	Introduction to the project
9-Sep	R Markdown - Visualization- Literature Review	Problem definition - R markdown document structure
16-Sep	R Markdown - Visualization- Literature Review	Problem definition - Review of the data - visualization
23-Sep	R Markdown - Visualization- Literature Review	Problem definition - Review of the data - visualization
30-Sep	Reviewing R or Python to work - Type of models to use	Literature Review Complete
7-Oct	Reviewing R or Python to work - Type of models to use	Review of the possible models - tools to use - complete
14-Oct	Reviewing R or Python to work - Type of models to use	Review of the possible models - tools to use - complete
21-Oct	Run the first models - review/analysis first results- Write first draft paragraph	Generation of the first results - complete
28-Oct	Run the first models - review/analysis first results - Write first draft paragraph	Generation of the first results - complete
4-Nov	Run the first models - review first/analysis results - Write first draft paragraph	First draft or report
11-Nov	Run the first models - review first results - Write first draft paragraphs	Generation of Analysis of results - complete
18-Nov	Writing about observations/Interpretation - Conclusions	Presentation of main conclusions - complete
25-Nov	Writing about observations/Interpretation - Conclusions	Second draft of report - complete
2-Dec	Writing about observations/Interpretation - Conclusions	Second draft of report - complete
9-Dec	Putting all together	Final report review - complete
16-Dec	Final report submission	Final report submission

1.5. Course Technology

Course Website:	The course is on Canvas – R, Python, KNIME, other
Other Websites:	
Course Delivery:	Face to face

UWSP Technology Support:

The Office of Information Technology (IT) provides a Service Desk to assist students with connecting to the Campus Network, virus and spyware removal, file recovery, equipment loan, and computer repair. You can contact the Service Desk via email at techhelp@uwsp.edu or at (715) 346-4357 (HELP) or visit: <https://www.uwsp.edu/infotech/Pages/ServiceDesk/default.aspx>

2. LEARNING OUTCOMES

2.1. Course Goals

- This course has been designed to develop competencies for developing a full project in data analytics from data gathering to reporting the findings.
- At the end of the course students will have a project and report including all steps of the analytics process.
- At the end of the course students will have a dynamic report where combine the prose with the possible interaction and dynamic of models running and presenting results.

2.2. Course Learning Objectives

- Knowledge Related**
 - Build a case solution using the analytics process
 - Use of modeling techniques to analyze data
- Comprehension Related**
 - Explain and summarize the analytics process, steps performed, methodology and explanation of results
- Application Related**
 - Construct conceptual and quantitative models to support the decision-making process
 - Perform the search of best alternatives to proceed with data, modeling, and tools selection
- Analysis Related**
 - Consolidate the resources of data analysis in the real situation
- Communication Related**
 - Report el process and finding in the data analytics process
- Evaluation Related**
 - Compare results and alternatives under several variables

2.3. Methodology

This course has as methodology aspects the following:

- Individual and in group meetings to review the research process and enrich the learning process based on the experiences of the group and feedback
- Sessions for discussing theoretical issues. From the analytics point of view and from the research methods in analytics. Open discussion and enhancement of answers based on the participation in class

2.4. Academic Unit

SBE Mission:

The UWSP School of Business and Economics educates and inspires students and prepares graduates for success in positions of leadership and responsibility. We serve the students, businesses, economy, and people of the greater central Wisconsin region. Our students achieve an understanding of regional opportunities that exist within the global economy. Evidence of our graduates' level of preparation will be found in their ability to:

- Analyze and solve business and economics problems
- Understand the opportunities and consequences associated with globalization
- Appreciate the importance of behaving professionally and ethically
- Communicate effectively

3. COURSE POLICIES

3.1. Attendance

You will be responsible for anything that goes on in class.

3.2. Late Work

Late work may not be accepted. If accepted, late work will lose 25% per calendar day

3.3. Etiquette/Netiquette

POSITIVE LEARNING ENVIRONMENT. It is my goal to provide a safe and nurturing learning environment for all students. Therefore, breaches of classroom courtesy are defined as any behaviors that are disruptive to the learning environment. The following examples provide a foundational description of classroom courtesy:

- Displaying respect for others is required at all times. It is not required that you share the perspectives of your classmates, but rather that you do not discredit their right to have their own opinion. Expressing alternate viewpoints is important, but this should be done in a collegial manner.
- Side discussions, listening to head phones, sleeping in class, and abusive language is considered disruptive behavior.
- No shouting, no profane language, no verbal or physical threats, no intimidation of any kind.

- Not arriving to class under the influence of any alcohol or drugs

4. GRADING

4.1. Grading Scheme

This course will be evaluated based on a scale 1-5 in five criteria. The final grade is the ratio of the aggregated points reached to 25 or maximum score.

5. COURSEWORK

General comments:						Grade
Project						
	1low	2	3	4	5 high	
1. The use of the models is appropriate						
2. The data analysis is appropriate						
3. There is a good explanation of the outcomes of the models/techniques						
4. There is a clear presentation of the steps for the analysis/answers of questions						
5. There are clear conclusions and recommendations						
Total points 25. The grade is the ratio of the aggregated numeric appraisal of the five criteria to 25						

Presentation of the final report 100% of the grade

6. SCHEDULE

6.1. Dates and Deadlines

The instructor will provide a tentative course schedule in a supplementary file. All provided course schedules are organized by week number in accordance with the official UWSP Academic calendar. A direct link to the UWSP Academic calendar can be found here:

<https://www.uwsp.edu/acadaff/Pages/AcademicCalendar.aspx>

7. OTHER ADMINISTRATIVE DETAILS

7.1. ADA / Equal Access for Students with Disabilities

The American Disabilities Act (ADA) is a federal law requiring educational institutions to provide reasonable accommodations for students with disabilities. For more information about UWSP's policies, see: <https://www.uwsp.edu/datc/Pages/uw-legal-policy-info.aspx>

UW-Stevens Point will modify academic program requirements as necessary to ensure that they do not discriminate against qualified applicants or students with disabilities. The modifications

should not affect the substance of educational programs or compromise academic standards; nor should they intrude upon academic freedom. Examinations or other procedures used for evaluating students' academic achievements may be adapted. The results of such evaluation must demonstrate the student's achievement in the academic activity, rather than describe his/her disability.

If modifications are required due to a disability, please inform the instructor and contact the Disability and Assistive Technology Center to complete an Accommodations Request form. The Disability and Assistive Technology Center is located on the 6th Floor of Albertson Hall. For more information, call 715-346-3365 or visit: <https://www.uwsp.edu/datc/Pages/default.aspx>

7.2. Inclusivity/Nondiscrimination Statement

It is the responsibility of the instructor to present materials and activities that are respectful of diversity, such that students from all diverse backgrounds and perspectives be well-served by this course. No person shall be discriminated against because of race, ethnicity, color, age, religion, creed, gender, gender identity, sexuality, disability, nationality, culture, genetic information, socioeconomic status, marital status, veteran's status, or political belief or affiliation and equal opportunity and access to facilities shall be available to all. To address concerns regarding any of these issues please call 715-346-2606 or visit:

<http://www.uwsp.edu/hr/Pages/Affirmative%20Action/About-EAA.aspx>

7.3. Religious Beliefs Accommodation

It is UW System policy (UWS 22) to reasonably accommodate your sincerely held religious beliefs with respect to all examinations and other academic requirements. A direct link to this policy can be found here: https://docs.legis.wisconsin.gov/code/admin_code/uws/22

7.4. Help Resources

The Tutoring and Learning Center helps with Study Skills, Writing, Technology, Math, & Science. The Tutoring and Learning Center is located at 018 Albertson Hall. For more information, call 715-346-3568 or visit: <https://www.uwsp.edu/tlc/Pages/default.aspx>

If you need healthcare, UWSP Student Health Service provides student-centered healthcare that empowers and promotes wellness for all UWSP students. Student Health Service is located on the 1st floor of Delzell Hall. For more information, call 715-346-4646 or visit:

<http://www.uwsp.edu/stuhealth/Pages/default.aspx>

The UWSP Counseling Center is staffed with licensed mental health professionals dedicated to assisting students as they navigate difficult circumstances or resolve personal concerns. Therapy and consultation services are free of charge for registered students. The UWSP Counseling Center is located on the 3rd Floor of Delzell Hall. For more information, call 715-346-3553 or visit:

<http://www.uwsp.edu/counseling/Pages/default.aspx>

In addition to the support services provided by Student Health Service and the UWSP Counseling, there are also professional support services available to students through the Dean of Students. The Office of the Dean of Students supports the campus community by reaching out and providing resources in areas where a student may be struggling or experiencing barriers to their success. Faculty and staff are asked to be proactive, supportive, and involved in facilitating the

success of our students through early detection, reporting, and intervention. As such, an instructor may contact the Office of the Dean of Students if he or she senses that a student is in need of additional support beyond what the instructor is able to provide. For more additional information, please go to <http://www.uwsp.edu/dos/Pages/default.aspx>

UWSP students may also share a concern directly if they or another member of our campus community needs support, is distressed, or exhibits concerning behavior that is interfering with the academic or personal success and/or the safety of others. Please report any concerns of this nature at <https://www.uwsp.edu/dos/Pages/Anonymous-Report.aspx>

7.5. Emergency Response Guide

In the event of an emergency, follow UWSP's emergency response procedures. For details on all emergency response procedures, please go to <http://www.uwsp.edu/rmgt/Pages/em/procedures>

7.6. UWSP Community Bill of Rights and Responsibilities

UWSP values a safe, honest, respectful, and inviting learning environment. In order to ensure that each student has the opportunity to succeed, a set of expectations has been developed for all students, staff, and faculty. This set of expectations is known as the Rights and Responsibilities document, and it is intended to help establish a positive living and learning environment at UWSP. For more information, go to:

<https://catalog.uwsp.edu/content.php?catoid=10&navoid=422#section-1-communal-bill-of-rights-and-responsibilities>

7.7. University Attendance Policy

In addition to the course attendance policies determined by the instructor (noted above if applicable), the university provide standard guidelines by which students are to abide. All exceptions to the course attendance policy or the university guidelines should be documented in writing. A link to the university's attendance guidelines can be found at:

<https://www.uwsp.edu/regrec/Pages/Attendance-Policy.aspx>

7.8. University Drop Policy

You are expected to complete the courses for which you register. If you decide you do not want to take a course, you must follow the procedures established by the university to officially drop the course. If you never attend or stop attending a course and fail to officially drop, you will receive an F in the course at end of the semester. A link to the university's drop policy can be found at:

https://catalog.uwsp.edu/content.php?catoid=11&navoid=431&hl=add%2Fdrop&returnto=search#Drop/Add/Withdrawal_Procedures

7.9. Academic Honesty

UW System policy (UWS 14) states that students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors. Students suspected of academic misconduct will be asked to meet with the instructor to discuss the concerns. If academic misconduct is evident, procedures for determining disciplinary sanctions will be followed as outlined in UWS 14. A direct link to this policy can be found here: https://docs.legis.wisconsin.gov/code/admin_code/uws/14

7.10. *Grade Reviews/Appeals*

A formal grade appeal, also known as a Grade Review, can be requested in instances when the student feels that he or she was not provided a syllabus with a grading scale in a timely manner (i.e., the end of the second week of classes) and/or the instructor did not stick with the grading scale published in the syllabus. Questions of whether or not the instructor appropriately graded one or more of the course assignments, quizzes, exams, etc. are not matters to be decided by a formal grade appeal, but rather should be taken up with the instructor directly. Information on grade reviews can be found in the University Handbook, Chapter 7, Section 5. A link to the university's policies on non-academic misconduct can be found at <https://www.uwsp.edu/acadaff/Pages/gradeReview.aspx>

7.11. *Non-Academic Misconduct*

Information on non-academic misconduct can be found in Chapters 17 and 18 of the Student Rights and Responsibilities Document. A link to the university's policies on non-academic misconduct can be found at <https://www.uwsp.edu/dos/Pages/stu-conduct.aspx>.

7.12. *Confidentiality*

Learning requires risk-taking and sharing ideas. Please keep your classmates' ideas and experiences confidential outside the classroom unless permission has been granted to share them.

It is important for students to understand that faculty are required to report any incidents of maltreatment, discrimination, self-harm, or sexual violence they become aware of, even if those incidents occurred in the past, off campus, or are disclosed as part of a class assignment. This does not mean an investigation will occur if the student does not want that, but it does allow the university to provide resources to help the student continue to be successful.

7.13. *Sample Coursework Permission*

The instructor may wish to use a sample of your work or some of the feedback you provide on the course in future teaching or research activities. Examples: showing students an example of a well-done assignment; analyzing student responses on a particular question; discussing teaching techniques at a conference. If your coursework or feedback is used, your identity will be concealed. If you prefer not to have your work included in any future projects, please send the instructor an e-mail indicating that you are opting out of this course feature. Otherwise, your participation in the class will be taken as consent to have portions of your coursework or feedback used for teaching or research purposes.

7.14. *Revision Clause*

This syllabus, the provided schedule, and all aforementioned coursework, are subject to change. It is the student's responsibility to check the course website for corrections or updates to the syllabus. Any changes will be clearly noted in a course announcement or through email.