MATH 619 Syllabus, Term 252

Program: MSC- Data Science & Analytics
Code: MATH 619
Title: Project
Prerequisite: Graduate Standing
Instructor: Dr. Maher Boudabra
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Description

A graduate student will arrange with a faculty member to conduct an industrial research project related to the program field. Subsequently the students shall acquire skills and gain experiences in developing and running actual industry-based project. This project culminates in the writing of a technical report, and an oral technical presentation in front of a board of professors and industry experts.

Prerequisite

Graduate Standing

Objective

The main objective of the project is to:

- Discuss industry-oriented applications
- Integrate the knowledge, skills, and competencies of the program into a practical project
- Provide students the opportunity to team up with industry professionals to develop their professional skills and knowledge

Learning Outcomes

Upon completion of the project, students should be able to:

- Discuss the steps needed to design computational-based solutions to a practical problem
- Apply the required computational skills to solve the problems
- Develop the ability and confidence necessary for solving mathematical problems.
- Assess and evaluate the proposed solution/design.

Supplementary Material:

1. IBM SPSS
2. Python
3. R
4. Matlab

Attendance

Attendance is a University Requirement. A student must attend all scheduled meetings. A warning will be assigned to a student who misses 2 presentations without official excuse.

Academic Integrity

All KFUPM policies regarding ethics apply to this course.

Project Requirements

1. Each student should come up with a project title and project idea.
2. The project should be of a practical nature and directly related to industry.
3. Students are required to indicate the names of a potential academic advisor and industrial advisor (if any with CV). Having an industry expert as co-supervisor is recommended.
4. As part of the assessment method, a short report (5-6 pages) describing the progress and the encountered difficulties by the student should be submitted to the advisor bi-weekly along with a Power-Point presentation.
5. Poster session at Math Department should be delivered during last week of the second semester and each student should be present from 1 pm to 4 pm to answer the questions of a scientific committee.
6. Final report is required, and is part of the assessment.
7. Presentation is required in front of the advisor and at least two others (faculty members or external industry experts, to be selected by the advisor).
8. Student is given letter grade. The letter grade will be based on the short reports, the presentations, the final report and the oral examination during the presentation.
9. Grade is assigned by the advisor, not by the committee.

Grading Policy

- Progress reports: 60%
- Final Report: 20%
- Final presentation: 20%