Course Syllabus
MIS 7190 – Programing for Business
Fall Semester, 2018
3.0 Credit Hours

Instructor: Toluwalope Ayangbayi, MD, Ph.D.
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Skype: tolu.ayangbayi
Time: 7.10 – 10.10 p.m. T
Venue: FCB 373

Office Hours: by appointment

Course Overview:
In this course you will be introduced to object-oriented programing using the CRAN R framework. Students will learn how to write programs in R for exploratory analysis, visualization and interpreting results from derived from business data in a systematic and meaningful way. We will spend most of the time in class writing programs in R and performing tasks like data manipulation, interpretation and presentation of results.

Pre-Requisites/Co-Requisites:
MIS 7060 or Instructor’s permission.

Recommended Texts (and Related Materials):

  ISBN: 978-0-387-79053-4

Location of Course Materials:
Materials developed in class, assignments and any other materials will be on eCourseware.
Course Objectives:

By successfully completing this course, students will:

- Understand R programming concepts and basic data science techniques, and apply them to evaluate business scenarios, and transform problems into actionable items
- Contribute to business problem-solving activities by experiencing first-hand the power of R programming language to reveal unexpected patterns and stimulate new perspective and insights
- Learn to think creatively about linking data and R programming framework with the subject matter expertise
- Appreciate other programming languages such as Python and data science tools to perform basic analytic tasks
- Work effectively as a member of a team, including demonstrating collaboration and problem-solving skills

Fogelman College: Learning Outcomes for Your Degree

This course is designed to help you to meet the overall learning objectives for the MBA/MS/PhD degrees offered by the Fogelman College. You should take the time to become familiar with the overall learning objectives as a student in the MBA, MS or Ph.D. program.

- MBA Program Outcomes (opens in new window)
- MSBA Program Outcomes (opens in new window)
- PhD Program Outcomes (opens in new window)

Course Methodology

- Instructor presentation of material that teaches fundamentals of CRAN R and basic data science concepts. There will be extensive class discussion and note taking is essential.
- In-class interactive activities, discussions, reading assignments and scenario analysis to practice the lecture material, data science, and programming techniques and tools.
- Assigned problems to practice the lecture material.
- Exams and quizzes to test students on the key data science concepts covered in class.
- Project to analyze a business problem and propose alternate solutions/strategies that involve a detailed understanding of programming and data science concepts.

Professor’s Expectations of Students:

In general, you should assist the instructor and your classmates in creating a positive, supportive environment for learning by staying engaged in the course. You will learn as much from the collective contributions of your classmates as you will from the instructor. As a group, we will create a positive, playful, and collaborative environment, and share each other’s views, insights, and analysis of assigned scenarios and readings covered on the course.
Students Expectations of the Professor:

In my role as your instructor, there are certain things you can expect from me including: well-organized and engaging learning experience, response to emails within two (2) business days, and feedback on all work submitted within 7-10 calendar days.

Grading and Evaluation Criteria

Over the semester, you will have a variety of opportunities to earn points towards your final (overall) letter grade in this course. This section of the syllabus describes the assessed work you will be doing and how the overall (final) letter grades will be computed.

Final Course Grades

Final course grades are earned according to the following table:

<table>
<thead>
<tr>
<th>Point Range</th>
<th>Assigned Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90.00 – 100.00 Points</td>
<td>A</td>
</tr>
<tr>
<td>80.00 – 89.99 Points</td>
<td>B</td>
</tr>
<tr>
<td>70.00 – 79.99 Points</td>
<td>C</td>
</tr>
<tr>
<td>60.00 – 69.99 Points</td>
<td>D</td>
</tr>
<tr>
<td>Under 60.00 Points</td>
<td>F</td>
</tr>
</tbody>
</table>

Your overall grade for the semester is based on how well you perform on a mixture of formal activities including exams, discussions, assignments and projects.

Summary of Graded Activities

Points earned on the assessed activities will be distributed as follows:

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Total Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>25</td>
</tr>
<tr>
<td>Instructor and Peer Evaluations</td>
<td>10</td>
</tr>
<tr>
<td>Midterm</td>
<td>10</td>
</tr>
<tr>
<td>Final exam</td>
<td>20</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10</td>
</tr>
<tr>
<td>Project Proposal (including project plan) report</td>
<td>5</td>
</tr>
<tr>
<td>Project written report</td>
<td>15</td>
</tr>
<tr>
<td>Project final presentation</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100 pts</strong></td>
</tr>
</tbody>
</table>
List of Formal Assessed Activities

Project
A project will be carried out collaboratively and each group will submit a project report. Project reports will be at least 1800 words long (excluding the title and references). Reference sources should be credible. Sources such as Wikipedia, Dictionary.com, blogs or vendor sites are not considered appropriate for academic work and should be used.

Presentation
Team members will work collaboratively to create a PowerPoint presentation which will be displayed during the team’s presentations for the final project. Please plan on posting the team’s presentation by the day listed in the schedule section. Presentations will last 15-20 minutes followed by 10 minutes of Q&A. The names of all team members should be included in the PowerPoint. All group members are strongly encouraged to participate in the project and each team member will participate in the oral presentation.

Team presentations will be graded according to the following criteria:

- Organization and flow
- Completeness
- Length of presentation falling within the specified time range
- Identification and thoughtful analysis of major points of view
- Convincing conclusions are drawn and an understanding of investigative results is demonstrated

Quizzes
Two in-class quizzes (individual level) will be conducted on the dates listed in the schedule. These quizzes will consist of multiple-choice questions and will be “closed book”. There are no make up quizzes and absence will result in a zero grade.

Exams
The midterm (10%) and cumulative final exam (20%) will be in-class. The objective of exams is to test participants’ grasp of the key concepts covered in the class; understanding of programing and data science concepts, assignments, readings, and handouts. Absence from any scheduled exam will result in an exam grade of zero unless a prior arrangement is made with the instructor.

Instructor and peer evaluations
Peer and instructor evaluations of participant participation will be conducted throughout the course. As part of the peer evaluations, each participant will rate the degree each team member fulfilled their responsibilities in completing the project and assignments. These ratings should
reflect each individual’s level of participation, effort and sense of responsibility, and not their academic ability.

Instructor evaluation of participants will be conducted according to the following criteria:

- Is well prepared in advance
- Actively contributes to discussions and asks questions
- Volunteers willingly and carries own share of the group’s responsibility
- Adheres to the in-class computer/phone usage policy
- Actively participates in synthesizing and presenting the concepts covered in the class

**Assignments**

Homework will be assigned on a fairly regular basis probably weekly. The goal of assignments is to reinforce knowledge gained in the class and sometimes to prepare students for the next class. Students will be grouped for the purpose of completing the programing and data science assignments using complementary skills and perspectives to solve problems within teams.

**Schedule of Activities**

Classes hold 7.10 – 10.10 p.m. T @ FCB373

- 08/28 – first day of classes
- 09/03 – Labor Day holiday
- 10/09 – midterm exam
- 10/13 – 10/16 – Fall Break
- 11/21 – 11/25 – Thanksgiving break
- 12/4 – Last class/Wrap up
- 12/11 – Final exam

A detailed class schedule will be made available on eCourseware.

**Final Exam Schedule**

The final exam for this class will be scheduled according to the Registrar’s academic calendar website (opens in new window).

**Course Policies**

**E-MAIL:**

All students are required to maintain and access their University of Memphis (@memphis.edu) email account. You will receive all official course correspondence at this email account. Any inability to receive incoming mail in a timely fashion (e.g., not regularly checking your email, having a “full mailbox” condition, etc.) is the student’s responsibility.
Attendance:

All students are expected to attend classes regularly and promptly. Although, formal attendance will not be part of students’ assessment, there is a university policy to report students who do not attend classes. This may affect continuation of a student loan if in receipt of one. Students should also understand they may miss important information, classroom interaction, or in-class quizzes when absent from class. Students have the responsibility to take all scheduled exams and turn in all assignments by the announced date and time. The instructor reserves the right to deduct up to 50 percent for late submissions. Participants who miss in-class sessions are responsible for completing all in-class course work with a 50 percent grade reduction.

An absence from an assignment/in-class/quiz coursework shall be ‘excused’ if due to any of the underlisted in addition to presentation of valid documentary evidence and prior email notification of the instructor:

- Hospitalization of the participant or an immediate family member due to illness or accident
- Death in the participant’s immediate family (ex., spouse, parents, guardian, sibling, children)
- Summons for jury duty or court appearance
- Any other excuse approved by the course instructor

Adding / Dropping:

If you have questions about adding or dropping classes, please refer to this page on the Registrar’s website (opens in new window).

Academic Integrity:

The University of Memphis has clear codes regarding cheating and classroom misconduct. If interested, you may refer to the Student Handbook section on academic misconduct for a discussion of these codes. Note that using a “Solutions Manual” is considered cheating. Should your professor have evidence that using a “Solutions Manual” has occurred, he/she may take steps as described on the campus’ Office of Student Conduct website (opens in new window). If you have any questions about academic integrity or plagiarism, you are strongly encouraged to review the Fogelman College’s Website on Academic Integrity (opens in new window).

Participation:

To be successful in this course as a student, you must stay active and involved throughout the entire semester. Students are expected participate in all interactive aspects of the course. You should also regularly communicate with the instructor as part of your overall learning experience,
check into the course frequently for announcements (usually on the course home page), and actively participate in threaded discussion events (both formal and informal). You should plan on logging into the course at least three times each week.

**Classroom or Online Behavior:**

All participants in the course should be considerate of the other course participants and treat them (as well as their opinions) with respect. The class will operate under the assumption that any and all feedback offered is positive in nature and that the intentions of the person(s) providing feedback are strictly honorable. Insensitivity in this area will not be tolerated. If you have any questions about online communication, you should review the [Fogelman College's Netiquette website](https://example.com).

**Late Assignments:**

Assignments and projects may be submitted anytime up to and including the date due. Please review all information in this syllabus and related “Course Activity Summary / Schedule” for all due dates for formally assessed work. If your work is not submitted on time, the instructor reserves the option to deduct up to 20% of the grade value for tardiness depending upon the circumstances and appropriate communication between the student and the instructor.

**Inclement Weather:**

In the event that inclement weather requires the cancellation of classes at The University of Memphis, local radio and television media will be immediately notified. Additionally, The University of Memphis has established an Inclement Weather Hotline at 678-0888 as well as [TigerText](https://example.com), an emergency alert text messaging service to students, faculty and staff. This optional service is used in the event of an on-campus emergency, an unscheduled university closing, or a delay or cancellation of classes due to, for instance, inclement weather. Additional information on [TigerText](https://example.com).

**Syllabus Changes:**

The instructor reserves the right to make changes as necessary to this syllabus. If changes are necessitated during the term of the course, the instructor will immediately notify students of such changes by individual email communication and posting both notification and nature of change(s) on the course bulletin board and in-class discussion.

**Student Services**

Please access the [FCBE Student Services](https://example.com) page for information about:

- Students with Disabilities
- Tutoring and other Academic Assistance
- Advising Services for Fogelman Students
- Technical Assistance