ACCT414 (SMU-X)
Accounting Analytics Capstone
AY 2024-2025 Term 1
(Aug-Nov 2024)

INSTRUCTORS

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TEACHING ASSISTANT

TBC

COURSE PREREQUISITES

ACCT337 Statistical Programming (formerly ACCT419) or ANLY104/ IS217 Analytics Foundation, or equivalent knowledge in R programming and statistics as well as basic supervised machine learning techniques such as Regression Analysis and Classification Trees.

It is **recommended** that students have **completed some Analytics electives or equivalents which involve data visualisation, database management, and data transformation**. Students who have not completed these electives are still welcome to apply for Accounting Analytics Capstone but will need to do some **self-directed learning** via the DataCamp learning tool which will be made available to all students.

Should projects require additional technical skills, additional training will be provided through workshops either by external guests or SMU faculty. Students are expected to take the initiative to learn as they work on the consulting project together with their teammates*.

***Students are highly encouraged to form their teams of 5-6 students BEFORE bidding into the class.**

COURSE DESCRIPTION

BACKGROUND

Traditionally, the accounting function's role is always viewed as that of a steward, the control centre for the organisation, rather than the catalyst for enterprise growth. The term 'back office' is often used to describe the operating nature of accounting function. So in today's volatile global business environment, the key challenge for accounting function is how to lead the enterprise in its growth strategies while ensuring effective risk management and stewardship of the enterprise. With complexity and data proliferation, increasingly the CEO and the board turn to accountants to help make sense of data, to help cut through this complexity, and to provide more informed analysis on the business and its operation. The opportunity for the accounting function is if it can generate the insights that help make better corporate decision making, while continuing to ensure effective control of the enterprise, its reputation as a catalyst for growth will be guaranteed. To do so, traditional accounting departments may have to transform themselves into 'intelligent accounting functions'. Intelligent accounting functions run their operations as cost effectively as possible, leveraging technology to reduce finance operating costs; strengthen stewardship and control so as to establish a solid foundation to support growth.

LEARNING OBJECTIVES

This SMU-X course offers an experiential learning opportunity that allows students to translate classroom knowledge and theory into practical solutions for real organizations. Through this student consultancy project, students learn how to solve complex business problems with guidance from the faculty and project sponsor mentors, from problem definition to final client presentation – while simultaneously testing their skills in real world settings. **The course will focus on examining accounting function and applying data-driven analytics and insights so as to identify and create accounting delivery efficiencies**.

This course contributes to the development of the following learning goals:
  LO2.1 Our students understand and can apply business concepts and principles.
  LO2.2 Our students can communicate effectively in a business context.
  LO2.3 Our students understand the principles of leadership and team building in
        a business context.

The course aims to achieve the following objectives:

- **Real-world problem solving through student consultancy project**
- **Apply classroom learning and research to real-world challenges in order to envision solutions for an intelligent accounting function**
- Understand the changing role of finance function
- Understand how to simplify, streamline and harmonize essential finance processes to create a leaner, more efficient finance function
- Learn how to use a data visualization tool
- Experiential and peer-learning
- Active mentoring by faculty and project sponsors
- Learn how to handle uncertainty in a project

Process/procedure:

- Each project group should comprise **5-6** students. Each group needs to appoint a team coordinator.
- Project sponsor will collaborate with project teams, and in consultations with the instructors, to define the project scope, develop project plans, and determine the deliverables project teams will create
- Dual-mentor approach – students are provided with faculty mentors (provide content expertise and advice on team dynamics) and a project sponsor mentor (provides industry expertise); such approach is important in guiding and supporting students facing unfamiliar business problems
- Project teams are expected to work with project sponsor, doing research on the issue or problem. Students are expected to meet their faculty and project sponsor mentor regularly
- Final deliverables – Project teams will deliver a formal presentation to project sponsors as well as provide written recommendations, analyses and prototype developed during project engagement

Seminar Materials and Guidance:

- No prescribed textbook.
- Students are expected to carry out extensive research on their own that is related to the issue or problem in the project
- Students may have to rely on knowledge obtained in courses they have studied to tackle the project.
- Online Resource: DataCamp (link will be provided)

Projects to be confirmed in late June 2024

LESSON PLAN

Please refer to weekly schedule in the Table below.

Week	Agenda
1	• Course Introduction • Project launch • Student teams to meet project sponsors and faculty to discuss project scope
2	• Seminar on "Planning a Consulting Project" • Compulsory consults for all teams
3	• Proposal presentation by student teams and discussion with project sponsors and faculty • Project proposal submission (Run-through with project sponsors) **MILESTONE 1**
4	• Optional Consults
5	• Optional Consults
6	• Optional Consults

7	• Compulsory consults for all teams
8	• Midterm Break
9	• Mid-term progress presentation for project sponsor by students • Mid-term progress submission **MILESTONE 2**
10	• Seminar on "Wrapping up a Consulting Project" • Optional Consults
11	• Compulsory Final Consult
12	**Accounting Analytics Convention Part I** (first 45 minutes) **+** **Final Project Presentation** to project sponsors and faculty by students **MILESTONE 3** *Subject to changes based on enrolment size*
13	**Accounting Analytics Convention Part II** (first 45 minutes) **+** **Final Project Presentation** to project sponsors and faculty by students **MILESTONE 3** *Subject to changes based on enrolment size*

ASSESSMENT

To pass the course, a student is required to obtain a **TOTAL** mark of 50% or better. The assessment components are listed below: Group Project Proposal (5%), Mid-term Project Progress Presentations (10%), Group Project Presentation and Demo (50%), Group Project Final Report (20%) and Individual Reflection Essay (15%).

1. *Group Project Proposal (5%)* **MILESTONE 1**

Project groups are to meet instructors and project sponsors to develop their project proposals by Week 3. The project proposal will be in the form of presentation **slides only** (no report required) and should include:

- Background: Tell us about the problem or issue in ways that demonstrate an understanding of existing problem or issue, as well as the context and intents of the organisation involved in the project
- Project Statement: A paragraph on the problem or issue at hand, and what your team intends to deliver at the end of the project.
- Approach/Framework: How do you intend to tackle the problem or issue? What informs your approach?
- Timeline: A breakdown of your team's project schedule

2. *Project Progress Presentation (10%)* **MILESTONE 2**

Project teams are expected to conduct a mid-term project progress presentation during the semester. The presentation should include a progress update on the project that details aspects of project management and solution development. This is typically the presentation where you can be more technical, sharing about how your models/algorithms work so that your clients can understand your approach. By covering the more technical material here, you will be able to focus on the business implications and insights for your final presentation.

3. <mark>*Accounting Analytics Convention and Final Presentation (50%)* **MILESTONE 3**</mark>
- All teams will be required to submit their Milestone 3 deliverables the day before Week 12's presentations (to be confirmed in Week 1)
- **MILESTONE 3** deliverables include:
  - **Project Poster for showcase** as part of the **Accounting Analytics Convention** during the **first 45 minutes** prior to the clients coming in for the Final Presentation.
    - Samples will be given so that students can take reference on how to design it. Students are reminded that they need to **seek client approval** for any charts and findings that will be featured on the poster and **if necessary, anonymise both the client and the findings**.
    - This poster will then be published on SMU School of Accountancy's website.
  - **Presentation slides** should be a balanced mix of technical (data-driven) and management-focused content. The primary focus of the presentation is to **help your client make better decisions** based on your analysis and findings so they will need to understand things from a layman perspective.

- In-class presentation/**demonstration** of your technical solution (dashboard, model, app, or any other tool) to senior executives of project sponsors and instructors
- Student peer-evaluation will be conducted during group project presentation.
- Project sponsors' feedback on students' performance during the project will be sought

4. *Group Project Final Report (20%)*

Your report must include:

- Write-up of company background
- Problem(s)/Issue(s)
- Recommendation
- Justification on why your design considerations are consistent with the problems/issues identified
- Walkthrough of your demonstration using screen captures
- Bibliography Citations of research papers, books and periodicals referenced

Page limit is 40 pages.

5. *Individual Reflection Essay (15%)*
You may consider the following points when writing your reflection essay:
- Were the goals and objectives of the experiential activity accomplished? Describe your experiential activity relating it to its goals and objectives
- What are the most important learning moments you take with you from this experience?
- What type(s) of a role did you fulfill during the experiential activity? Examples include leader, collaborator, challenger, creator, team-builder, innovator, etc.
- Were you effective within this/these roles?
- What did you do that seemed to be effective? What were your personal contributions to the experiential activity?
- What have you done in this experiential activity to make a difference? What impact do you think you have had?

Word limit ought to be in the range of 1,200-1,500 words.

GRADING RUBRIC

5 key components:

1. Depth of Analysis
2. Appropriateness of dashboards/models/tools/apps
3. Consistency
4. Client Management
5. Practical Implications

GRADING BANDS

Below C- (Below Average): Did not meet project requirements and showed little initiative throughout the project.

C-/C/C+ (Average): Met most project requirements and client expectations but lacking in direction of what management can do with the findings from the dashboard/tool/app developed. The business value proposition of the project deliverables is not clear or even absent.

B-/B/B+ (Good): Project was completed to the satisfaction of the clients and met requirements according to the scope defined. Project insights and findings are useful with some generic suggestions of what can be done, providing some general business value.

A- and A (Very Good): Exceeded expectations by providing additional value to the client on top of achieving the project objectives. Project deliverables are presented clearly with recommendations given to management on what to do next.

A+ (Excellent): Far exceeded expectations by going above and beyond what was required. Proposed and developed solutions are of professional consultant standards with a clear direction on the strategic actions that management need to take next and how that will drive the business forward.

PLAGIARISM

All acts of academic dishonesty (including, but not limited to, plagiarism, cheating, fabrication, facilitation of acts of academic dishonesty by others, unauthorized possession of exam questions, or tampering with the academic work of other students) are serious offences. All work (whether oral or written) submitted for purposes of assessment must be the student's own work. Penalties for violation of the policy range from zero marks for the component assessment to expulsion, depending on the nature of the offense. When in doubt, students should consult the instructors of the course. Details on the SMU Code of Academic Integrity may be accessed at https://smu.sharepoint.com/sites/oasis/SitePages/DOS-WKLSWC/UCSC.aspx.

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ACCESSIBILITY

SMU strives to make learning experiences accessible for all. If you anticipate or experience physical or academic barriers due to disability, please let me know immediately. You are also welcome to contact the university's disability services team if you have questions or concerns about academic provisions:

DSS@smu.edu.sg. Please be aware that the accessible tables in our seminar room should remain available for students who require them.

DIGITAL READINESS FOR TEACHING AND LEARNING (DRTL)

As part of emergency preparedness, instructors may conduct lessons online via the Zoom platform during the term, to prepare students for online learning. During an actual emergency, students will be notified to access the Zoom platform for their online lessons. The class schedule will mirror the current face-to-face class timetable unless otherwise stated.

Vetted by: Seow Poh Sun, 10 Jun 2024