UC Davis, MSBA Program

BAX 462 - Fall 2024

Course name: Practicum Initiation
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Course Overview

Days / Time / Location:

This class has two components of instruction: live in-person classroom teaching and weekly Zoom huddles for Practicum projects. There are no drill sections.

1. Classroom instruction (required):
    - Section 1: Saturdays 9:30 am - 11:30 am in person on campus
    - Section 2: Fridays 5:00 pm - 7:00 pm in person on campus
2. Weekly Zoom huddles (required):
    - With your Practicum team, by Zoom. Will be scheduled with your team and coach.

NOTE: This syllabus is subject to updating at any time at the discretion of the instructor. Last updated on 8/27/2024.

Another note: This class has no midterm and no final exam.

What Is This Course About?

Each student is assigned to a Practicum Project, a team of students who work together for the entire academic year under the guidance of your instructors, to complete a real project for an industry partner.

The BAX 46x course sequence (i.e. BAX 462, 462 and 463) enables students to learn key skills and competencies to successfully deliver analytical projects in a business environment. The learnings from BAX 46x are applied in the student assigned practicum projects.
The practicum is the most intensive learning opportunity in the MSBA. Its purpose is to help students *master analytics delivery* by traversing the analytics consulting life-cycle: the complete path from project initiation to final delivery.

Students begin their practicum journey by gaining knowledge and developing comprehension: framing and scoping the opportunity and its payoffs, familiarizing themselves with data, setting up an effective team structure and working protocols, and developing productive engagement with the sponsoring MSBA industry partner (“MIP”.)

As each project unfolds, teams extract insights from the available information, convert data insights to business outcomes, persuade their MIP of the value of their work, and endeavor to manifest that value through implementation. By the end of the MSBA, each team should be very proud of the value of their practicum project provided to their MIP.

We focus on agile project management techniques here, including work sprints, weekly stand-ups (“huddles”), and repeated revisions of statements of work and project plans as needed by the MIP.

What Are the Necessary Skills for Business Analytics Professionals?

The associated three course sequence - BAX 462, 462 and 463 - supports two key desired outcomes: for each team to provide value to the MIP, and in the process, for each student to learn the skills and competencies needed to flourish as a business analytics professional.

The BAX 46x course sequence focuses on the development of 9 key competencies:

These competencies include the ability to:

1. Acquire, clean, integrate, and analyze disparate data sources #data_mastery
2. Communicate effectively, verbally and in writing #communication
3. Work productively as part of a project team #teamwork
4. Produce valuable business insights that are actionable and support decision making #insight_generation
5. Engage constructively with the client (in our case, the MIP) #client_engagement
6. Create measurable and sustainable business impact #impact
7. Plan and deliver a complete project from initiation to final deployment using agile project management techniques#project_delivery
8. Understand business situations (financial, organizational, culture, etc.) and take appropriate actions to create positive outcomes #business_acumen
9. Understand the newest AI technologies (including technology like ChatGPT) and how they apply to the strategic and tactical business analytics environment. #ai_savvy

How does BAX 46x Enable Professional Proficiency?

BAX 462 has two parts: in-person classroom instruction and weekly practicum project meetings (“huddles”).

The **classroom instruction** will build skills and competencies in the context of the students' project work. In other words, we draw out the experiential learnings of individual projects and connect them to broader analytics competencies and skills.

Weekly **project huddles** provide ongoing review of project status and enables instructor feedback on project planning, progress, priorities, methodologies, MIP presentations and more.

Optional **drill sections and TA office hours** provide hands-on technical instruction and assistance in completing our programming homeworks. All students are welcome, but it is anticipated that students without much previous programming experience will benefit the most from these.

BAX 462 Learning Goals

The learning goals of BAX 46x are to develop the 9 key competencies that are needed to deliver successful practicum projects. In BAX 462, the focus is on the competencies that support the initial steps of the project. The learning goals specific to BAX 462 are below. Class is structured to support these learning goals.

#	Learning goal	Competencies
1	Communicate effectively, verbally and in writing, within the project team, in the classroom, with MIP staff, and with other MSBA stakeholders, incorporating the diversity of their interests and abilities	#communication #client_engagement
2	Demonstrate ability to understand the full analytics project lifecycle as well as its business impact and to develop a statement of work (SOW) and a comprehensive project plan	#project_delivery #business_acumen
3	Actively foster a team and class culture of dependability, supportiveness, citizenship, and ethical behavior	#teamwork
4	Demonstrate proficiency in collecting, managing and analyzing data	#data_mastery #insight_generation #ai_savvy

Pedagogy, Required Texts, and Technology

BAX 46x instructors employ active learning[1]. While *short* lectures are delivered, discussion and group activities form the foundation of learning. Students should come to class with mastery of pre-class readings and assignments. Students should expect to be assessed on pre-class materials through discussion, in-class exercises and quizzes.

We will use the following required texts this semester:

- Fenning, Chris. Effective Emails: The Secret to Straightforward Communication at Work (Business Communication Skills Books), ISBN-13 : 978-1838244064. Available for $15 at Amazon.com.
- Franks, Bill. Winning The Room: Creating and Delivering an Effective Data-Driven Presentation 1st Edition. ISBN-13: 978-1119823094. Available for $20 at Amazon.com.
- Iansiti, Marco and Lakhani, Karim. Competing in the Age of AI: Strategy and Leadership when Algorithms and Networks Run the World. ISBN 13: 978-1633697621. Available for $25 at Amazon.com

We will also use free versions of Asana software for project management. There may be additional videos or reading material made available in Canvas, typically without additional cost to the student, during each week's instruction.

The Role of Feedback

Peer feedback is the sine qua non of professional teamwork. Thus in the "clinical", i.e., practice-oriented, setting of the practicum, peer-to-peer learning predominates. Lessons learned from each others' mistakes, especially when observed fresh, can be instructive in a way that lectures or books cannot. Students are expected to attentively observe and respectfully critique the experiences of other teams during structured activities and class conversation. This expectation can initially create discomfort, sometimes from the belief that the professor is the only qualified teacher, or from apprehension about conflict or loss of reputation. With practice, the discomfort alleviates and learning occurs.

Academic Honor Code

All students are expected to adhere to the University of California, Davis' Code of Conduct as noted here: http://sja.ucdavis.edu/files/cac.pdf . Please also note that if "academic misconduct is admitted or is determined by adjudication to have occurred," per Regulation 550 the student could potentially receive a grade of "F" not only for the assignment or project in question, but also for the entire course.

ChatGPT, Plagiarism, Ethics, and the Honor Code

We recognize that artificial intelligence tools such as ChatGPT offer tremendous productivity boosts, and part of this class' explicit teaching objective is to teach students how to use these

tools in analytics work. We outline the following principles for use of AI tools in this class, with thanks to the Creative Commons license from Professor Joel Gladd of Western Idaho University[1]:

1. If an assignment explicitly forbids use of AI tools, do not use them.
2. For most class assignments, tools such as ChatGPT are allowed with proper citation. Use of an AI tool without citation is an academic integrity violation.
3. Any class submission not explicitly identified as AI-generated is assumed to be the original work of the student.
4. Classroom work
    a. AI tools are allowed for classroom essays and written work - and encouraged especially for preparation and editing of these items. You must cite.
    b. AI tools are allowed and encouraged for completion of computer programming assignments from drill sections. You must cite.
5. Practicum Projects
    a. AI tools will retain queries submitted to them. This is, after all, how they learn!
    b. **Do not submit any of your MIP's confidential code, information, verbiage, or other queries to an AI tool. This will be considered a violation of your NDA**.
    c. It is permissible to use an AI tool to generate code which you will use on your Practicum project.
    d. It is **NOT permissible to upload code** you are already using on your project to ChatGPT and ask it to debug the code - this code could contain confidential MIP information.
6. Students must be aware that AI tools sometimes make up information which isn't real ("AI hallucinations"), state information which is out of date, or make other errors. Students are responsible for the accuracy of all work they turn in, even that generated by an AI tool. When you use an AI tool, you assume the risk. In other words, if an AI tool generates the paragraph, and you correctly cite the tool, but there later turns out to be an issue with the paragraph, you (the student) bear responsibility for that error - not ChatGPT.

Grades & Assignments

Course grades are based on quizzes and class exercises, team assignments, progress on your practicum project and your individual engagement and contribution to team success. There are no examinations. Canvas will contain raw scores for each scored element, which will be normalized when final grades are calculated.

[1] Thanks to Professor Joel Gladd, College of Western Idaho, from whom we adapt our policies. https://docs.google.com/document/d/1WpCeTyiWCPQ9MNCsFeKMDQLSTsg1oKfNIH6MzoSFXqQ/edit#

Components of Course Grade

The course grade is computed as follows:

Category	**Weight**
Practicum Progress Assessment	30%
Statement of Work	10%
Project Plan	10%
MIP Presentation Rehearsal	10%
Individual Engagement	10%
Contribution to Team Achievement	10%
Class Exercises and Quizzes	20%

This class follows the standard UC Davis grading scheme:

Letter Grade	**Range**
A+	100% to 97%
A	< 97% to 93%
A-	< 93% to 90%
B+	< 90% to 87%
B	< 87% to 83%
B-	< 83% to 80%
C+	< 80% to 77%
C	< 77% to 73%
C-	< 73% to 70%
D+	< 70% to 67%
D	< 67% to 63%
D-	< 63% to 60%
F	< 60% to 0%

A grade of Incomplete (I) can be recorded if the student is unable to meet the requirements of class over the semester. See the UC Davis Registrar's page on Incomplete grades for more details on how to resolve an Incomplete.

Each component of grading is briefly described below. Each assignment contains a rubric which specifies how the assignment will be graded. Due dates are provided in the section at the end of this syllabus; last-minute changes are disseminated via Slack and Canvas.

Individual Engagement: 10% (individual)

Learning occurs fully when students engage fully in class and practicum huddle activities, contribute fair share to team output, and deport themselves professionally. Students are expected to be on time to class, pay attention when in class, participate in all class activities, earn sufficient scores from peers on peer evaluations, and follow our Behavioral Norms.

Contribution to Team Achievement: 10% (individual)

This score is based on a peer-reviewed score for each team member as well as input from instructors. It is expected that each team member contributes substantially to the work required to deliver a successful project.

Statement of Work (SOW) Report: 10% (team)

The Statement of Work (SOW) is a plan for implementing a solution. The audience for the SOW is your MIP and your SOW serves as a way to get agreement on the objectives, timing and deliverables.

Project Plan: 10% (team)

Each team will submit a project plan, containing expected deliverables, tasks, milestones, and risk mitigation.

MIP Presentation Rehearsal: 10% (team)

Before making the quarterly presentation to its MIP, each team makes a rehearsal presentation in class. The MIP presentation should include the project goals, potential business impact, planned deliverables, accomplishments this quarter, major remaining tasks and timeline, and any risk and risk mitigations.

Practicum Progress Assessment: 30% (team)

In consultation with the MIP and based on observed progress in huddles, assignments and MIP meetings, the instructor scores each team's progress and accomplishments relative to the project's potential for success.

Class Exercises and Quizzes: 20% (individual and team)

Individual and team quizzes and exercises are assigned during class sessions and on Canvas. The exercises and quizzes are *administered at any point in the class meeting or as homework to be completed outside of class and submitted.* They are generally based on materials from lectures, readings, drill sections, and videos.

Unexcused Absences and Late Work Penalties

Making up missed class exercises and quizzes is at the discretion of the instructor. Students will receive zero points for unexcused absences.

Unless discussed with the instructor *before the due date*, there will be no exceptions to assignment deadlines. An assignment submitted up to 24 hours late will lose 25% of the maximum score. Assignments submitted more than 24 hours past the deadline will merit a zero score.

Behavioral Norms

To enhance the seminar learning environment, students are expected to act in a professional manner. Professional behavior includes adhering to course requirements, being respectful of other class participants, and *actively* contributing to course-related discussions and activities *inside and outside class*. Specifically:

1. Students are expected to abide by the University of California-Davis code of conduct found at http://sja.ucdavis.edu/cac.html.
2. Doubts or questions should be communicated directly to the instructor as soon as feasible, via Slack or Zoom chat. Students are expected to use good judgment to separate individual queries from team queries and class queries.
3. Participants in pre-scheduled web meetings are expected to join from a quiet location using video and audio, i.e., to be full and equal contributors. Full participation in video meetings requires the student's camera to be kept on the entire meeting.

Practicum Huddles

A course instructor meets separately with each practicum team at least once a week, on a pre-arranged schedule, as well as additional ad-hoc meetings as needed. Each team member is expected to attend the team's meeting. We use agile project management methodology here. The agenda includes reviewing project progress, data analyses, presentations, client communications, project plans, etc.as well as other ad hoc issues that arise.

Office Hours

Instructors will have scheduled office hours. In addition, students may set up appointments with course instructors individually as their needs dictate.