



Course Syllabus – INST 490 Section 0201

Integrated Capstone for Information Science

INST490

Fall 2018

FIRST EVER
BSIS CAPSTONE

Course Description & Learning Outcomes

Pre- or co-requisite: Completion of all InfoSci core courses.

The **Capstone in Information Science** is the main practicum course in the Undergraduate Information Science (BSIS) program. It provides a platform for students to integrate and apply many of the concepts, methods, and tools they have learned throughout their BSIS program of study. Over the course of the semester, students collaborate in groups on a specific project that addresses an information problem or fulfills an information need.

Our goals are that your capstone project will:

- Be an authentic, real-world application (i.e., has "so what" value)
- Tell an information science story with interrelated technology, human, social, information elements
- Enable you to discuss your project's impact on people/society

Upon successful completion of the course, you will be able to:

- Identify and articulate a problem that can be addressed or a need that can be fulfilled by making use of information and technology tools and methods within the field of Information Science.
- Identify the approaches, methods, tools and processes that can be used to address the problem or the need in question, and pick the most suitable solution mix given the requirements and constraints at hand.
- Develop and revise an action plan to address the problem or the need in question using the chosen solution mix.
- Implement and execute the action plan to address the problem or the need in question.
- Report the process and the outcomes of the intervention, critically evaluating the costs, the benefits, and the overall success level of the project.
- Explain how the project is situated in its broader social or organizational context and reflects ethical and equity issues.
- Assess your own learning.
- Plan for ongoing professional and career development.
- Demonstrate professional skills that are necessary to function in information science-related job markets.

As a culminating experience, the capstone provides the opportunity for you to synthesize the information that you have been learning in academic coursework and be able to apply this information and the resulting skills to a practical project.

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Chief Information
Officer, Author

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Section 0103

Class Meets

Tuesday

6:00 – 8:45 pm

Francis Scott Key Bldg.,

Room #1117

Office Hours

HBK South Room 0215C

by appointment

Course Communication

- Announcements, both time-sensitive and regular updates, will be posted on ELMS and e-mailed to the class listserv.
- Contact me via ELMS or by e-mail (be sure to include “**INST 490**” in the subject).
- I will try to reply to e-mails within 48 hours –but please send a reminder if I do not – again, with “**INST 490**” in the subject.

Capstone Project Parameters

Students will work in groups of three to four over the course of the semester, depending on the size and scope of a given project. Projects may include, but are not limited to: designing or revamping an information system, administering a user experience study, or performing a data analysis intervention. Throughout the course, students will identify an information science problem, articulate the problem, identify tools and methods that could be used to develop a solution, create a project plan, and implement the solution. In general, the project topics will be provided to the students, and each project will have at least one external stakeholder who will meet with the students at selected points during the project and contribute to the assessment of their work on the project. Most student groups will select from a project topic that has been coordinated in advance by the instructor; however, on a case-by-case basis, student groups may propose their own project topic. In such cases, the project must be approved by the instructor. The instructor will provide a list of project candidates early in the semester for student groups to use in the course of the semester.

Course Activities and Learning Assessments

Your final grade will be based on the following assignments. They are divided into **two overarching components**:

- **Project Capstone [CPxx]:** The assignments in this component cover all of the deliverables that are related to your group project. With the exception of the Capstone In-Progress Reviews (IPRs), each assignment is worth 10 points, or 10% of your grade.
- **Professionalization [PDxx]:** The assignments in this component are designed to support your efforts to launch your career as an Information Professional. We have collaborated with the UMD Career Center to craft a series of activities that will help you develop a professional profile, resume, job interview strategies, and job/internship search strategies.

Learning Assessment	Points for Assignment	Weight for Assignment
Project Capstone Component (60% of your grade)		
[CP01] Project context analysis / charter	100	10%
[CP02] Problem articulation / requirements document	100	10%
[CP03] Project plan	100	10%
[CP04] Project In-Process // Internal Progress Reviews (IPRs) – multiple (x6)	2 points each , <u>drop lowest score</u>	10%
[CP05] Project final report and other deliverables	100	10%
[CP06] Project presentation	100	10%
Professionalization Component (40% of your grade)		
[PD01] Resume	100	10%
[PD02] Search strategies	100	10%
[PD03] Professional profile document (LinkedIn)	100	10%
[PD04] Mock job interview	100	10%

Detailed Outline: Course Activities and Learning Assessments

Details regarding each assignment are included below.

- **Capstone Project Component.** Sixty percent (60%) of your grade is tied to your group capstone project. With the exception of in-progress/in-process reviews (IPRs), each assignment is worth 10% (10 points) of your grade. The IPRs will be due periodically, at regularly scheduled intervals throughout the semester, and will be completed in coordination with the instructor, during class.
 - **Project selection and assignment [CP01a].** For the first two weeks of the course, potential projects will be introduced to the class, and each student will have an opportunity to select up to three projects that s/he is interested in, and team members with whom s/he would like to work. The instructor will provide a list of potential projects to select. The instructor reserves the right to load balance team members based on the skills needed to tackle the project with individual and team-based synergy. That is, a project that requires someone with database design and implementation experience will need at least one team member who is comfortable with/familiar with DBMS strategies and implementation. Student teams will self-organize.
 - **Project context analysis [CP01]:** This will be a detailed analysis of the current situation, history, issues surrounding the client / candidate project. Two to three paragraphs should be sufficient.
 - **Problem articulation / requirements document [CP02]:** You and your team will develop a document that articulates an information problem or need based on the problem/project that we have identified for you to work on (based on the project selection process. This document will frame the requirements and specifications for the project the students will work on.
 - **Project plan [CP03]:** Based on the feedback they receive on the project proposal, you will develop a detailed, time-bound plan to carry out the project. Upon receiving the instructor's approval of the project plan, you will start working on the project.
 - **In-Process/Progress Reviews (IPRs):** Throughout the semester, the students will meet with the instructor to review, present and submit an IPR that summarizes some incremental aspect of the project. For example, the IPR will typically consist of a review of one functional requirement from the requirements document, with team members reviewing how the status of that requirement. Some questions that should be reviewed include: Is this functional requirement completed/What is the status overall? What are the challenges met or still being worked, and what are the opportunities that have been taken? What are the potential points of failure? Who is working which issues, and what client feedback has been provided? (~Five IPRs for the semester, at 2pts for the IPR).
 - **Project presentation [CP04]:** Students will present their project work either as a poster or a live presentation at the end of the semester. In most cases, the primary client will attend the presentation (others who are deemed stakeholders, depending on the project, may attend).
 - **Project report [CP05]:** Towards the end of the semester, the students will wrap up their project, bring together the project deliverables, and write a report that summarizes what they have achieved, what they have failed to achieve, what they see as the strengths and limitations of their project solution, and what future improvements and extensions they envision.
- **Professionalization Component.** Forty percent (40%) of your grade is tied to your own individual professional development.
 - **Resume [PD01]:** You will develop a competent resume that is adequate for communicating their skills, achievements, formal credentials, and career interests in an effective way. This resume will receive a peer review (and each student is also required to provide peer review feedback as part of their grade).

- **Search strategies [PD02]:** You will conduct a search strategy for a job, after attending one of three scheduled workshops on search strategies that are being offered by the UMD Career Center. Based on the workshop’s recommended best practices, you will conduct a search and reflect upon how you would update your resume to best fit the jobs you’re interested in applying for. You’ll also write a short ~1page, single-spaced reflection (400-600 words) about the process.
- **Professional profile document [PD03]:** Over the first third of the semester, each student will develop a professional profile document on **LinkedIn.com** that lays out their career interests, potential job descriptions that would be of interest to them, their existing skills and knowledge that are relevant to their identified career paths and potential jobs, and what other skills and knowledge they need to acquire to be competitive as a professional pursuing their identified career paths and potential jobs, as well as a plan for acquiring those skills and knowledge during their remaining time in the InfoSci program and beyond graduation. Please note, as you craft your professional profile document, that UMD has a student social media policy: <https://www.president.umd.edu/administration/policies/section-v-student-affairs/v-120a>
- **Mock interview [PD04]:** You will prepare for and participate in a mock interview for a position you have identified within your career domain. We will be practicing and receiving feedback in class. More details to come as we get closer to this exciting professionalization activity. The University of Maryland Career Center will lead this initiative. Also – there will be an opportunity for outside IT managers to also participate in mock interviews to ensure a real-world experience.

Grades

Grades are not given, but **earned**. Your grade is determined by your performance on the learning assessments in the course. If earning a particular grade is important to you, please speak with me at the **beginning** of the semester so that I can offer some helpful suggestions for achieving your goal.

All assessment scores will be posted on the course ELMS page. If you would like to review any of your grades (including the exams), or have questions about how something was scored, please email me to schedule a time for us to meet in my office.

I am happy to discuss any of your grades with you, and if I have made a mistake I will correct it quickly. Any formal grade disputes must be submitted in writing and within one week of receiving the grade.

Final letter grades are assigned based on the percentage of total assessment points earned. To be fair to everyone I have to establish clear standards and apply them consistently, so please understand that being close to a cutoff is not the same this as making the cut (89.99 \neq 90.00). It would be unethical to make exceptions for some and not others. **I do not round grades up**, so do not ask me to do this at the end of the semester. **I will not respond to email requests for a grade bump at the end of the semester.** The cutoffs are as follows:

Final Grade Cutoffs							
+	97.00%	+	87.00%	+	77.00%	+	67.00%
A	94.00%	B	84.00%	C	74.00%	D	64.00%
-	90.00%	-	80.00%	-	70.00%	-	60.00%
		F					<60.0%

Late Assignments

A late penalty will be applied to any assignment that is submitted late (starting one minute beyond the due date and time).

Late assignments will be graded according to the following formula:

$$[\text{grade on assignment}] * 0.9^{[\text{number of days late}]}$$

For example, if you turn in a 10-point assignment 1 day late, and earned a 100% on that assignment, your final grade for that assignment would be $(1.00)(0.9^1)$, or 90%. If you turned in the same assignment 3 days late, and earned an 80%, your grade would be $(0.80)(0.9^3)$, or 58%. Therefore, although your grade will take a serious hit if the assignment is late, **in this class it is always better to turn in an assignment late than to not do it at all.**

Please prepare in advance so that you will not encounter technical difficulties that will result in your work receiving a late penalty. **Technical difficulties are not an excuse for late assignments.** If you have a conflict with the due date, assignments can always be submitted early. **Generally speaking, illnesses are not an excuse for late assignments** because you will receive the assignments at least one week before they are due.

If you know you will not be able to meet an assignment deadline, contact me **before** the due date to explain why you will need to submit the assignment late; these will be evaluated on a case-by-case basis. Note that **in-class activities and learning checks cannot be made up**; however, only 20 will count toward your final grade, giving you some leeway for missed classes.

Project Presentation Policy

This policy is adapted from the UMD Exam Policy, as your capstone project presentation requires the same level of commitment and responsibility as is required for scheduled exams. **If you need to miss your Project Presentation because of outside circumstances** (e.g., a religious holiday, military duties, work/athletic team travel), you must email me **before the drop/add period ends (September 10)** to reschedule your team's project presentation time. If you are sick on any project presentation or IPR days, you must provide me with a doctor's note to be excused ([see the UMD policies on absences](#)) and should email me before the exam time to let me know you're sick. If you miss an exam due to other circumstances (e.g., oversleeping), you will not be able to make up the presentation.

Policy on Academic Misconduct

Cases of academic misconduct will be referred to the Office of Student Conduct irrespective of scope and circumstances, as required by university rules and regulations. It is crucial to understand that the instructors do not have a choice of following other courses of actions in handling these cases. There are severe consequences of academic misconduct, some of which are permanent and reflected on the student's transcript. For details about procedures governing such referrals and possible consequences for the student please visit <http://osc.umd.edu/OSC/Default.aspx>.

University of Maryland Code of Academic Integrity

The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit <http://shc.umd.edu/SHC/Default.aspx>.

Accommodations

Students with disabilities should inform me of their needs at the beginning of the semester. Please also contact the Disability Support Services (301-314-7682 or <http://www.counseling.umd.edu/DSS/>). DSS will make arrangements with the student and me to determine and implement appropriate academic accommodations. Inclusion is one of the iSchool's core values, and we have attempted to make all materials and assignments accessible to people with varying abilities. However, if there is something else I can do to make the class more accessible please schedule a time to come talk to me. This will benefit not only yourself but also future students!

Get Some Help!

You are expected to take personal responsibility for your own learning. This includes acknowledging when your performance does not match your goals and doing something about it. Everyone can benefit from some expert guidance on time management, note taking, and exam preparation, so I encourage you to consider visiting <http://ter.ps/learn> to schedule an appointment with an academic coach. Sharpen your communication skills (and improve your grade) by visiting <http://ter.ps/writing> and schedule an appointment with the campus Writing Center. Finally, if you just need someone to talk to, visit <http://www.counseling.umd.edu>.



Everything is free because you have already paid for it, and **everyone needs help**... all you have to do is ask for it.

Names/Pronouns and Self Identifications

The University of Maryland recognizes the importance of a diverse student body, and we are committed to fostering equitable classroom environments. I invite you, if you wish, to tell us how you want to be referred to both in terms of your name and your pronouns (he/him, she/her, they/them, etc.). The pronouns someone indicates are not necessarily indicative of their gender identity. Visit trans.umd.edu to learn more.

Additionally, how you identify in terms of your gender, race, class, sexuality, religion, and dis/ability, among all aspects of your identity, is your choice whether to disclose (e.g., should it come up in classroom conversation about our experiences and perspectives) and should be self-identified, not presumed or imposed. I will do my best to address and refer to all students accordingly, and I ask you to do the same for all your fellow Terps.

Students in Need

If you feel you are encountering psychological problems that hamper your course work, please refer to the Counseling Center (301-314-7651 or <http://www.counseling.umd.edu/>) for expert help. For more information on UMD's Student Services, see <http://www.studentaffairs.umd.edu/student-life>.

If you or someone you know feels unsafe, the university has resources (see list below). Read more about hate-based crimes here: https://ocrsm.umd.edu/files/Hate_Bias_FAQs_final.pdf.

Name	Phone	Website
University Counseling Center	301-314-7651	www.counseling.umd.edu
University Health Center and Mental Health Services	301-314-8180	www.health.umd.edu
University of Maryland Chaplains		thestamp.umd.edu/memorial_chapel/chaplains
Office of Civil Rights and Sexual Misconduct	301-405-1142	www.ocrsm.umd.edu

Week	Topics	Readings/Audio/Video	What's Due?
1 8/28	Introduction (course syllabus, capstone project, requirements, class structure, assignments) Class Introductions Goal, Tools, Planning Collaboration Activity Overview of "Menu" of Capstone Project Candidates	<ul style="list-style-type: none"> • YouTube.com - Define SUCCESS for YOURSELF #OneRule (15 minutes) https://www.youtube.com/watch?v=l0wzetBtIG0 	
2 9/4	Introduction to Project Management Principles Assignment of Projects to Student Groups Defining/Establishing Requirements	<ul style="list-style-type: none"> • Project Management Frameworks PPT (ELMS) • Project Bidding Survey • Review Sample Requirements Analysis (Small, Medium) (ELMS) • Review Project Charter Template (ELMS) 	<ul style="list-style-type: none"> • [PD03] Current Resumes (for use in project assignments). No modifications necessary. 15 points of 100 total. • Top 3 Project Selections
3 9/11	The Requirements "Interview" Project Team Roles (defined, discussed, assigned)	<ul style="list-style-type: none"> • Review Requirements Analysis Template (ELMS) • Review Project Scorecard (ELMS) 	<ul style="list-style-type: none"> • Teams select timeslot for IPR next week
4 9/18	First IPR for the teams	<ul style="list-style-type: none"> • Student Groups 15-20 Minutes with Professor <ul style="list-style-type: none"> • History / Charter. • Client Questions / Survey • Project Team Roles 	<ul style="list-style-type: none"> • IPR #1 (Initial Review)
5 9/25	Crafting Project Requirements Documents Feedback on Meetings with "Clients"	<ul style="list-style-type: none"> • Review a Real-World RFP / Proposal for a Website Redesign / CMS (EIMS) • UMD Career Center – Search Strategies 	<ul style="list-style-type: none"> • [CP01] Project Context Analysis DUE • Teams select timeslot for IPR next week
6 10/2	Elements of a Project Plan Functional Requirements / Technical Requirements Scoping	<ul style="list-style-type: none"> • Student Groups 15-20 Minutes with Professor <ul style="list-style-type: none"> • Problem / Requirements 	<ul style="list-style-type: none"> • IPR #2 (Problem / Requirements) • [PD02] Search Strategies DUE
7 10/9	Finalizing the Project Plan	<ul style="list-style-type: none"> • Review Sample Project Plans (ELMS) • Project Planning Tools – Student Session in Class 	<ul style="list-style-type: none"> • [CP02] Project Requirements DUE • Teams select timeslot for IPR next week
8 10/16	Ongoing Progress	<ul style="list-style-type: none"> • Student Groups 15-20 Minutes with Professor 	<ul style="list-style-type: none"> • IPR #3

		<ul style="list-style-type: none"> Students Informally Present Project Plans 	
9 10/23	Professionalization Presentation (Career Center) Peer Resume Review	UMD Career Center Resume Series <ul style="list-style-type: none"> Resumes: Intro (~1" viewing) How to Improve Your Resume (~4" viewing) How to Format Your Resume (Work Experience Section, ~3" viewing, 4" total) How to Tailor Your Resume for a Specific Position (4" viewing) 	<ul style="list-style-type: none"> Teams select timeslot for IPR next week [CP03] Project Plans DUE [PD01] Final Resume and Peer Feedback DUE
10 10/30	Project Reviews	<ul style="list-style-type: none"> Student Groups 15-20 Minutes with Professor <ul style="list-style-type: none"> Review Project Progress, Implementation, Issues 	<ul style="list-style-type: none"> IPR #4
11 11/6	Client Meeting / Discussion	<ul style="list-style-type: none"> Guest Speaker (Recent Graduate 2-3 Years Work Experience. Guest Speaker (Director, IT PMO) 	<ul style="list-style-type: none"> [PD03] LinkedIn Professional Profile DUE
12 11/13	Time for additional meetings	<ul style="list-style-type: none"> Student Groups 15-20 Minutes with Professor <ul style="list-style-type: none"> Project Progress, Status, Implementation Client Feedback / Interview 	<ul style="list-style-type: none"> Teams select timeslot for IPR next week
13 11/20	Mock Interview Day!	<ul style="list-style-type: none"> Student Teams Provide "Stand-up" Progress 	<ul style="list-style-type: none"> IPR #5 [PD04] Final Mock Interview Day Students Select Order of Presentations on Last Class
14 11/27	Preparation for Learning Expo, Demo practices, "Elevator Pitches"	<ul style="list-style-type: none"> UMD Career Center + 2 Industry IT Directors Participate in Interviews 	Experiential Learning Expo! December 10th 4:30-6pm, Lobby, Hornbake Library, North Wing (EXTRA CREDIT)
15 12/4	Final Project Reviews!	<ul style="list-style-type: none"> Student Groups Present Final Projects (15 Minutes / Group) 	<ul style="list-style-type: none"> IPR #6 [CP05] Final Projects and Reports Due