

CS Independent Study: BackEnd Work on CS Servers

SUMMER-II 2026

Dr. J. Holly DeBlois

Office: McCormack, 3rd floor, room 201-32

TimeFrame: Summer session 2: Mon Jul 13 to Fri Aug 15
Instructor Email: jane.deblois@umb.edu
Instructor Website: Notes, Outline of Work, Reports: <https://www.cs.umb.edu/~hdeblois/csisro>
Grades: Submit assignments to website (request slots as needed), grades will be emailed
Meetings: In-person at UMB as needed, at least one session per chapter in outline; text request to 617 877-9397

Course Description: In CS-IS we study BackEnd Work on CS Servers. We use Django. We start with Minnie1 that is a stand-alone server without internet. We connect Minnie to the CS Server Network as Minnie2. We also use Biggie, a team CS Server developed in CS410-02 last semester. We document the hardware setups and write a glossary of terms. We create class exercises. We add three new software functions using agile methods. Each has a set of tests. We create additional class exercises. We compile short readings, figures, exercises and glossary into a handbook suitable for use in short team projects that assure that each student has a chance to perform BackEnd work on a CS Server.

Textbooks and refs: The main reference in this course is the textbook: *Essential Scrum (ES), A Practical Guide to the Most Popular Agile Process*, (Pearson, 2013) by Kenneth S. Rubin, especially the glossary. The second reference is: *Manifesto for Agile Software Development* (2001) - <http://agilemanifesto.org/>. Use github. Identify new code separately from team code already developed. Check with Tom Mullaly on backups of code. Copyright new code.

Syllabus: see <https://www.cs.umb.edu/~hdeblois/csisro/2.pdf>. The syllabus includes the schedule of deliverables. We want a variety of simple back-end/front-end exercises to be generated, so be sure to break the functional requirements for both front-end and back-end work down to simple items, which can be tested as a pair. This will maximize utility of the exercises, and while it may be contrary to standard practice, (assigning front-end tasks to one worker and back-end tasks to another and testing in combination as late as final integration) it does represent a significant step toward implementing agile methods in favor of client participation along the way.

Note: No courses required by the CS major, minor or certificate may be taken pass/fail.

Prerequisites: CS410 Introduction to Software Engineering, CS444 Introduction to Operating Systems

Evaluation: Your grade in the course is determined by: biweekly reports on testing to be submitted on the CS server instructor website (20%), handwritten hardware and full stack diagrams for handbook to be submitted to csisro subdirectory on the CS server – please do submit updates and do not delete past versions (20%), deliverables as listed in 2.pdf on the website, also submitted to csisro subdirectory (40%), handbook draft and final with final due last Friday of session, submitted as pdf (20%).

Academic Integrity and Student Conduct will be strongly enforced. Your requirements, homework and reports must be your own work, not AI-generated. See

<https://www.umb.edu/academics/provost/academic-integrity/> **Make personal use of AI carefully.** Please ask questions about what is allowed. If you use a Large Language Model (LLM) in your work, you are required to cite it and indicate your prompts used. It is best not to reformat what you write using AI, since you will lose the personal flavor of what you write. Of course, use LLMs as well as Healey Library to explore. If you generate code, you are required to record your prompts in the code. Since UMB does not have any particular guidance for sourcing code yet, we will use the MIT guidance: <https://integrity.mit.edu/handbook/writing-code/> . In addition, since neither has guidance for citing LLM generated code, **document any code you generated and used by marking START, citing the prompt you entered and further down marking END.** We recommend you take steps to not allow any LLM to store your results.

Student Conduct: You must be honest in all your conduct. The University presupposes that work for academic credit is the student's own and complies with University policies above and here: <https://www.umb.edu/camp-life/dean-of-students/student-conduct-process/>.

Accommodation: Section 504 of the Rehabilitation Act of 1973 offers guidelines and support for curriculum modifications and adaptations for students with documented disabilities. Contact the Ross Center at 617-287-7430 and please discuss your accommodations with the instructor.

Syllabus and Schedule Subject to Change: The instructor reserves the right to change the syllabus when necessary and will let you know.

Additional references:

The Internet Book: Everything You Need to Know about Computer Networking and How the Internet Works, 5th Ed., Douglas E. Comer, (CRC Press, Taylor & Francis Group LLC, 2019).

Revisions: None

Table of score to grade conversions (default grading scheme "UMB letter" in canvas):

93 <= S	= A
90 <= S < 93	= A-
87 <= S < 90	= B+
83 <= S < 87	= B
80 <= S < 83	= B-
77 <= S < 80	= C+
73 <= S < 77	= C
70 <= S < 73	= C-
67 <= S < 70	= D+
63 <= S < 67	= D
60 <= S < 63	= D-
S < 60	= F