EECS 498 W25 System Design of a Search Engine course evals AI-generated summary

Google Gemini was given the prompt: "Nicole Hamilton has posted new course evals at https://web.eecs.umich.edu/~nham/CourseEvals/#EECS498. Can you summarize what they say?" This was the verbatim response, as formatted by Gemini. Comments follow.

The course evaluations for Nicole Hamilton's System Design of a Search Engine class (EECS 498) for Winter 2025 at UMich indicate the following:

Overall Perception:

Students generally found the course to be very valuable for learning system design, despite its demanding nature. Many highlighted the significant learning experience from building a search engine from scratch.

Key Strengths:

- **Project-Based Learning**: The hands-on project of building a search engine was consistently praised as the most valuable aspect. Students appreciated the opportunity to apply theoretical knowledge to a large-scale, real-world problem.
- Practical Skills: The course was effective in teaching practical skills relevant to industry, including low-level system design, multi-threading, concurrency, and debugging.
- Instructor's Expertise: Nicole Hamilton's deep experience in the search engine industry was highly valued. Students found her lectures insightful and appreciated her ability to explain complex concepts with real-world examples.
- **Teamwork**: The course structure fostered effective teamwork, which many found beneficial for developing collaborative skills.
- Career Preparation: Students felt the course significantly prepared them for technical interviews and roles in system design. Many mentioned feeling more confident discussing system design concepts with recruiters.

Areas for Improvement (as noted by some students):

- **Workload**: The course is very demanding, with a heavy workload, especially towards the end of the semester. Some students felt the deadlines were very tight.
- Clarity of Assignments/Specs: A few students suggested that assignment specifications could be clearer or that more guidance could be provided for certain parts of the project.
- **Debugging Challenges**: While debugging was a key learning point, some found the debugging process for such a complex system to be overwhelming at times, suggesting more structured support could be beneficial.

In summary, the Winter 2025 evaluations for EECS 498 generally show that students found the course to be highly beneficial and a significant learning experience, particularly due to its challenging and practical project-based approach. While demanding, the skills and knowledge gained were widely recognized as valuable for their academic and professional development.

You can view the full evaluations here: Nicole Hamilton Course Evaluations

Comments

This is a class in which students work in teams of 6 to build a distributed internet search engine from scratch in C++. My two lecture and two lab sections were surveyed midterm and near the end. Each survey produced two reports, the individual responses, and an instructor report that compiled the data. The result was 16 reports containing 222 pages of individual responses and 37 pages of instructor reports.

Gemini has read the 259 pages so you don't have to and it's done a good job predicting the language I think you'd see in a neutral summary. It's calculated an average, if you will, of what it read, and fit it into a predictable average summary format with an intro paragraph, strengths and weaknesses, and a concluding paragraph.

I think it's accurate. Students do like the class and they say really nice things, citing the reasons Gemini has picked out. On the Q1 and Q2 questions the university pays attention to, asking students to agree/disagree that it's an excellent class and taught by an excellent instructor, students gave an even mix 4.8's and 4.9's out of 5 across the 4 sections.

What Gemini could not do is give reliable examples or citations. When I followed up by asking, "What were some of the most helpful comments from students?", it hallucinated 6 very plausible, very complimentary, but completely made-up quotes. They were so good, so close to things students had actually said that I struggled. Should I trust the machine or my own lying memory? When I checked, actually searching the documents, I found that none of the quotes were real.

I objected, "I wanted actual quotes. I think you made these up." Gemini apologized that it hadn't understood I wanted direct, verbatim quotes and gave me 10 new made-up quotes. When I objected again, it conceded in its "thinking" that its browse tool only had access to "truncated snippets, not the full document", reporting back, "Therefore, I cannot verify or extract specific quotes as they are not present in the accessible content."

My own summary of this AI summary is that it has done a good job on this task, predicting what a good summary would look like. It did a better job than ChatGPT or Grok (which was terrible and unfriendly.) But don't ask it to produce citations. If you want to read some actual student comments, you'll need to read the instructor reports.

Nicole Hamilton