

Welcome to CS 442 / 542!

Professor Amanda Bienz

Contact Information

- Email : bienz@unm.edu
- Piazza Discussion Board
- Feel free to email me with any questions or concerns, and to post any questions on Piazza.
- I will check emails and Piazza boards at least once every weekday.
 - Expect response within 24 hours on weekdays
 - I will try to check on weekends but you may not receive a response until Monday

Course Information

- UNM Learn : Assignments, Tests, Lectures, Recordings
- Piazza : Discussion, Questions
- Website : www.amandabienz.com/cs442.html (schedule)
- Syllabus : Available on Learn and on class website
- Office Hours : TBA, **please complete poll posted on Learn**
 - (<http://whenisgood.net/w54p5ay>)

Course Format : Flipped Classroom

- Short lectures online at least 2 days before class
 - Watch before class (can watch at 2x speed)
- During class period we will:
 - Step through examples related to lecture
 - Discuss questions
- Attendance is not required

“In-Class” Questions

- Will be posted with lecture before class
- Are due by 6pm on the day of class
- Main objective : to clarify if any topics need explained better
- Should only take a few minutes to complete
- Lowest two scores will be dropped, and in sum worth 5% of final grade

Piazza

- A great place to ask for clarifications on topics
- Ask questions
- Answer other's questions
- I will post questions here that can be helpful to think about and discuss
- Please do not post any homework solutions
- Participating in Piazza discussions is worth 5% of your grade

Exams

- Two exams
- Will be posted on UNM Learn
- Exact dates TBA
 - First exam mid-semester
 - Second exam before thanksgiving break

Homework Assignments

- Will be posted on UNM Learn
- Consists of both written and programming assignments
- First written assignment is available, due next Monday
- You can write answers and scan / take photo of paper or type answers.
 - Please make sure they are legible.

Project

- Research-type project of your choice, related to parallel computing
- Preferably groups of 2-3, but if you want to use your research, you are welcome to do work alone
- Will consist of project proposal, short write-up on results, and presentation
- Will provide more information later in the semester

Grades

- 5% - “in-class” questions
- 5% - Discussion on Piazza
- 10% - Two exams (5% each)
- 40% - Homework assignments
- 40% - Project

Course Book

- No book required
- Great resource : “Introduction to High Performance Computing for Scientists and Engineers” by Georg Hager and Gerhard Wellein

Goal of Course

- To understand the performance of a parallel application
 - Profile applications
 - Create and analyze performance models
 - Make informed decisions about
 - Ideal run size (number of processes)
 - Where are application bottlenecks
 - Data movement optimizations