

# CMSC 132: Object-Oriented Programming II

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## Final Exam & Summary

**Department of Computer Science**  
**University of Maryland, College Park**

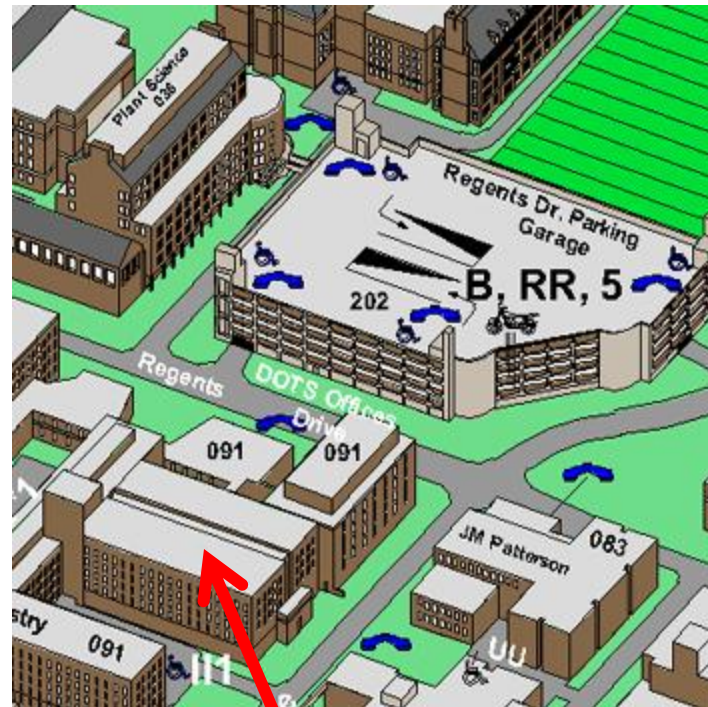
# Final Exam Location

## ■ Time

- Friday
- May 16<sup>th</sup>
- 4-6pm

## ■ Place

- Chemistry 1407
- CHM (Bldg 091)



# Question Formats

- **True/ false**
- **Fill-in-the-blank**
  - **Short answers expected**
- **Multiple choice**
- **Analyze complexity**
- **Apply algorithms**
- **Design OO solution in UML**
- **Write code**

# CMSC 132 Summary

- **We covered**
  - **Object-oriented software development**
  - **Algorithms & data structures**
- **Provided brief glimpse of CS applications**
  - **Human computer interfaces (GUIs)**
  - **Machine learning (Markov models)**
  - **High performance computing (Multithreading)**
  - **Networking, databases**
- **Hope you improved**
  - **Programming skills (coding, testing, debugging)**

# What Comes Next?

- **CMSC 212 – Low level programming**
  - **Treating references as memory addresses (in C)**
- **CMSC 250 – Discrete structures**
  - **Simple discrete math & proofs**
- **CMSC 311 – Computer Organization**
  - **How computers work**
- **CMSC 330 – Programming Languages**
  - **Different programming languages & paradigms**
- **CMSC 351 – Algorithms**
  - **Analyze & prove complexity of algorithms**

# What Comes Next?

- **Building computer systems**
  - 411 architecture, 412 operating system, 414 security, 417 networking, 430 compilers
- **Building software**
  - 433 programming technologies, 434 human-computer interfaces, 435 software engineering
- **Theory of computing**
  - 420 data structures, 451 advanced algorithms, 452 computation theory, 456 cryptology
- **Applications**
  - 421 artificial intelligence, 423 bioinformatics, 424 databases, 426 image processing, 427 graphics

# Computer Science

## ■ Very interesting

- Once you get beyond basic programming
- Improvements in software tools make it increasingly easy to provide a lot of functionality with little code

## ■ Useful in many fields

- Engineering, physical sciences, biological sciences
- Information management for businesses (\$\$)

## ■ In high demand

- Always in top 10 in # of open job positions
- \$52K average starting salary for 2007 grads
- **Skilled** software professionals always in demand

# A Reminder

- **Fill in class evaluations**

- <https://www.courseevalum.umd.edu/portal>

- **Deadline May 14**

- **Help us improve the course...**

Finally...

**Good luck on Exam**

**Have a nice Summer!**