New Graduate Student Orientation
Fall 2017

Online Resources
cs.odu.edu
People
Students

105 Returning Students
• 71 MS
  – 6 CIS concentration
  – 14 online program
• 34 PhD

• 50% international
• 28% female

38 New Students (Fall 2017)
• 32 MS
  – 5 CIS concentration
  – 4 online program
• 7 PhD

• 24 international
• 11 Virginia residents

Department Administration

• Dr. Ravi Mukkamala
  – Interim Department Chair
  – Associate Dean, College of Sciences

• Mrs. Janet Brunelle
  – Assistant Chair
  – Chief Departmental Advisor – undergraduates

• Dr. Steven Zeil
  – Assistant Chair
  – Course scheduling, GTA and grader hiring, colloquiums

• Dr. Yaohang Li
  – Graduate Program Director (GPD) for admissions
  – yaohang@cs.odu.edu
  – E&CS 3212

• Dr. Michele Weigle
  – Graduate Program Director (GPD) for advising
  – Advisor for all MS students
  – mweigle@cs.odu.edu
  – E&CS 3206
Faculty

**Tenured/Tenure-Track**
- Chernikov, Andrey
- Chrisochoides, Nikos
- He, Jing
- Jain, Shubham
- Li, Yaohang – *GPD for admissions*
- Mukkamala, Ravi - *Interim Chair*
- Nelson, Michael
- Olariu, Stephan
- Ranjan, Desh
- Wang, Cong
- Weigle, Michele – *GPD for advising*
- Zeil, Steven - *Asst. Chair*
- Zhao, Danella
- Zubair, M.

**Instructors**
- Boyle, Christopher
- Brunelle, Janet - *Asst. Chair*
- Elmesalami, Ayman
- Gupta, Rekha
- Kennedy, Thomas
- Morris, Jay
- Price, G. Hill

[http://odu.edu/compsci/directory](http://odu.edu/compsci/directory)

Front Office Staff (E&CS 3300)

- **Phyllis Woods**
  - Chair's Secretary
  - Office Supervisor

- **Christy Chavis**
  - Fiscal Technician

- **Ariel Sturtevant**
  - Office Service Asst.
  - Graduate Program Coordinator
Systems Staff

• Ajay Gupta - Director of Computing Resources

• Systems Engineers
  – Ryan Knauer  https://systems.cs.odu.edu/Main_Page
  – Diamon Wiggins

• For help with CS systems, email root@cs.odu.edu

• Once you’ve registered for a CS course, request a CS account at https://accounts.cs.odu.edu/validate/

Grad Student Email

• You will receive important information at two different email addresses
  – @odu.edu – Gmail-based, uses your MIDAS ID
  – @cs.odu.edu – MS Exchange-based, uses your CS username

• Set up an automatic forward of all email from one account to the other, so that you don’t miss anything

• If you are taking a graduate level CS course, you will automatically be added to the CS grad student alias
  – please let me know if you are not taking any graduate level CS courses this semester, so that we can have you added to the list
  – if you haven’t received any email sent to grad@cs.odu.edu by mid-September, let me know
ACM, ACM-W

• ODU chapter of the Association for Computing Machinery (international professional organization for computing)

• Organizes speakers and hackathons to help prepare college students for the reality of the tech world

• ACM-W – focused on women in computing

• *Not just for undergrads – get involved!*

• 2017 Presidents
  – ACM – Joanna Borba (jborb001@odu.edu)
  – ACM-W – Michelle Flanigan (mflan006@odu.edu)

What does ODU ACM do?

• Go to hackathons
• Company Tours
• Professional Speakers
• Hack Nights
• Social Events – Tie dye shirts, Ice Cream parties, Galas, lots of others!!
Why Join ODU ACM?

• Experience - Learn new languages
• Networking
  – Faculty & Staff at ODU
  – Professionals in the field from many companies
• Potential Internships
• FRIENDSHIPS & FUN!!!

• Contacts:
  – ACM – Joanna Borba
    (jborb001@odu.edu)
  – ACM-W – Michelle Flanigan
    (mflan006@odu.edu)

@oducs, https://graduate.cs.odu.edu/
Course Levels

- 100, 200, 300, 400 – undergraduate courses
- 500 – intro Masters level
  - most of these have a 400-level section, too
    - you’ll be in class with undergrads
  - MS students may have extra requirements
  - can take a maximum of 4
- 600 – Masters level
  - typically not taken by PhD students
- 700 – upper Masters level
  - often research-focused or advanced topics
  - cross-listed with 800-level courses
- 800 – PhD level
  - cross-listed with 700-level courses
  - PhD students may have extra requirements

MS Degree Requirements

- All options
  - core: CS 655 and (CS 500 or CS 600)
  - attendance at 10 colloquiums and CS 690 (1 CR)
  - at most 4 500-level courses
- Courses-only Option
  - 34 CR (11 courses)
  - written report and oral exit exam
- Project Option
  - 34 CR (10 courses + CS 698)
  - project report and oral presentation
- Thesis Option
  - 31 CR (8 courses + CS 699x2)
  - must take CS 600
  - written thesis document and oral defense

@oducs, https://graduate.cs.odu.edu/
Online MS

- Same requirements as on-campus MS
- Online viewing of colloquium events
- Implications for on-campus students
  - core courses will often alternate semesters between online and face-to-face (CS 500, CS 665)
  - cybersecurity courses are always taught online (CS 562, CS 563, CS 564, CS 565)
  - some electives may only be taught online (CS 723, CS 724, CS 725, CS 773) - up to the instructor

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### Computer Science MS Advising Worksheet - CS

*(Pull requirements at [https://graduate.cs.odu.edu/ms/](https://graduate.cs.odu.edu/ms/))*

<table>
<thead>
<tr>
<th>Name:</th>
<th>UIN:</th>
</tr>
</thead>
</table>

**MS Option**
- Courses-only (11 courses • 33 cr.)
- Project (10 courses • 30 cr. + 3 cr. CS 699)
- Thesis (8 courses • 24 cr. + 6 cr. CS 699)

**CS Core Courses**
- CS 665 – Computer Architecture
- CS 500 – Foundations of Computing, or
- CS 600 – Algorithms and Data Structures

**Certificates**
- Modeling & Simulation – 12 cr.
- Cybersecurity* – 12 cr.

**Prerequisites – if applicable**
- CS 150/250 - Programming
- CS 170/270 (CS 334) – Comp. Architec.
- CS 361 – Data Structures
- CS 381 – Discrete Math
- CS 471 – Operating Systems

**Course Plan – enter course numbers and semester**

| 500-level: | | | | | | | | | | | | | \(\text{at most 4 500-level total}\) |
|------------|------------------|
| semester:  | | | | | | | | | | | | |

| 600-level: | | | | | | | | | | | | | |
| semester:  | | | | | | | | | | | | |

| 700-level: | | | | | | | | | | | | | |
| semester:  | | | | | | | | | | | | |

*No more than 3 seminar or independent study courses (CS 697, CS 791, CS 796) will be counted towards the MS course requirements.*

* Cybersecurity certificate - may count S 500-level courses (cybersecurity + CS 500)

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@oducs, [https://graduate.cs.odu.edu/](https://graduate.cs.odu.edu/)
Graduate Certificates

Cybersecurity

• 4 courses, all online
• CS 562 Cybersecurity Fundamentals
• CS 563 Cryptography for Cybersecurity
• CS 564 Networked Systems Security
• CS 565 Information Assurance

Modeling and Simulation

• 4 courses
• MSIM 601 – Intro to ModSim
  – required (but does not count towards CS MS)
• 2 Foundation Electives
• 1 Advanced Elective

https://graduate.cs.odu.edu/certificates/cybersecurity/

PhD Requirements and Advising

• Major requirements
  – 8 800-level courses
    • 4 “regular” courses with 3 different faculty members
  – breadth exam
  – research skills requirement (publish a paper)
  – candidacy exam
  – dissertation and defense

• Your research advisor is also your academic advisor
More PhD Info

https://graduate.cs.odu.edu/phd/
- Requirements
- PhD Qualifying Process

• PhD Gathering
  - mandatory monthly gathering and lunch
  - Tuesdays, 12:30-1:30pm (activity hour)
    - first one in Fall – Sep 19
  - one PhD student will present their research
  - ask questions about the PhD program and requirements
Graduate Student Resources

https://graduate.cs.odu.edu/resources/

Courses
Finding Course Schedules

@oducs, https://graduate.cs.odu.edu/

Course Schedule
Using the Course Schedule

Filter by category

View seats available or current enrollment

Course Offerings

• Future course offerings are often similar to past course offerings
  – where S = {sum, fall, spr}YY
  – examples: sum17, fall17, spr16

• Registering for courses
  – register early
  – if needed, email instructor for override into closed class or waiting list
  – but, don't over-register

• Recently offered courses listed at https://graduate.cs.odu.edu/resources/recent-courses/
Recently Offered 500-Level Courses

500 Level – 500-level courses are typically co-listed with an undergraduate (400-level) course.

- CS 500 Foundations of Computing
- CS 517 Computational Methods and Software
- CS 518 Web Programming
- CS 531 Web Server Design
- CS 532 Web Science
- CS 541 App Development for Smart Devices
- CS 550 Database Concepts
- CS 555 Intro to Networks and Communications
- CS 576 Systems Programming
- CS 578 Computational Geometry, Methods, and Apps
- CS 580 Introduction to Artificial Intelligence
- CS 586 introduction to Parallel Computing

500 Level – online only

- CS 562 Cybersecurity Fundamentals
- CS 563 Cryptography for Cybersecurity
- CS 564 Networked Systems Security
- CS 565 Information Assurance

Recently Offered 600/700/800 Level Courses

600 Level – MS-only courses

- CS 600 Algorithms and Data Structures
- CS 665 Computer Architecture

700/800 Level – 700-level (MS) courses are always co-listed with a 800-level (PhD) course

- CS 712/812 Stochastic Modeling
- CS 714/814 Monte Carlo Simulation
- CS 722/822 Machine Learning
- CS 723/823 Introduction to Bioinformatics
- CS 724/824 High-Performance Computing and Big Data
- CS 725/825 Information Visualization
- CS 726/826 Application of Graphs in Bioinformatics
- CS 734/834 Introduction to Information Retrieval
- CS 751/851 Introduction to Digital Libraries
- CS 752/852 Wireless Communications and Mobile Computing
- CS 773/873 Data Mining and Security
- CS 775/875 Distributed Systems
- CS 776/876 Architectural Support for Cloud Computing
- CS 779/879 Design of Network Protocols
Seminars and Special Topics

• **CS 697**
  – Independent Study
  – arrange with individual faculty member

• **CS 791/891**
  – seminar (pass/fail)
  – often for research

• **CS 795/895**
  – topics course
  – may turn into a “regular” course in the future

• **CS 796/896**
  – special topics course
  – mainly for research, PhD students

Fall 2017 Courses

@oducs, https://graduate.cs.odu.edu/
## Fall 2017 Schedule

[https://graduate.cs.odu.edu/resources/fall-2017-sched/](https://graduate.cs.odu.edu/resources/fall-2017-sched/)

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### 500 Level Courses

*CS 500 will not be offered online again until Spring 2019*

<table>
<thead>
<tr>
<th>Course</th>
<th>Days</th>
<th>Times</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 500 – Foundations of Computing</td>
<td>ONLINE</td>
<td>Ranjan</td>
<td></td>
</tr>
<tr>
<td>CS 517 – Computational Methods and Software</td>
<td>MW</td>
<td>3:00-4:15pm</td>
<td>W. Li</td>
</tr>
<tr>
<td>CS 518 - Web Programming</td>
<td>T</td>
<td>4:20-7:00pm</td>
<td>Justin Brunelle</td>
</tr>
<tr>
<td>CS 550 – Database Concepts</td>
<td>ONLINE</td>
<td>Levinstein</td>
<td></td>
</tr>
<tr>
<td>CS 555 – Intro to Networks and Communications</td>
<td>MW</td>
<td>11:00am-12:15pm</td>
<td>Soad Ibrahim</td>
</tr>
<tr>
<td>CS 562 – Cybersecurity Fundamentals</td>
<td>ONLINE</td>
<td>Mohammad Almalag</td>
<td></td>
</tr>
<tr>
<td>CS 563 – Cryptography for Cybersecurity</td>
<td>ONLINE</td>
<td>Mukkanmala</td>
<td></td>
</tr>
<tr>
<td>CS 576 – Systems Programming</td>
<td>TR</td>
<td>5:45-7:00pm</td>
<td>Darich Runyan</td>
</tr>
<tr>
<td>CS 580 – Intro to Artificial Intelligence</td>
<td>TR</td>
<td>3:00-4:15pm</td>
<td>Li</td>
</tr>
<tr>
<td>CS 595 – Reverse Software Engineering</td>
<td>F</td>
<td>2:00-5:00pm</td>
<td>Cong Wang (new faculty)</td>
</tr>
</tbody>
</table>
## 600, 700/800 Level Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Level</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 665 – Computer Architecture</td>
<td>ONLINE</td>
<td>Olariu</td>
</tr>
<tr>
<td>CS 723 – Intro to Bioinformatics</td>
<td>ONLINE</td>
<td>He</td>
</tr>
<tr>
<td>CS 725 – Information Visualization</td>
<td>F</td>
<td>Weigle</td>
</tr>
<tr>
<td>CS 734 – Intro to Information Retrieval</td>
<td>R</td>
<td>Nelson</td>
</tr>
<tr>
<td>CS 776 – Arch Support for Cloud Computing</td>
<td>ONLINE</td>
<td>Olariu</td>
</tr>
</tbody>
</table>

@odu.cs, https://graduate.cs.odu.edu/

## CS 795/895 Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Days</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 795 – Internet of Things Security</td>
<td>MW</td>
<td>9:30-10:45am</td>
<td>Zhao</td>
</tr>
<tr>
<td>CS 795 - Advanced Algorithms &amp; Complexity</td>
<td>TR</td>
<td>9:30-10:45am</td>
<td>Ranjan</td>
</tr>
<tr>
<td>CS 795 – Formal Methods</td>
<td>TR</td>
<td>11:00am-12:15pm</td>
<td>Chernikov</td>
</tr>
<tr>
<td>CS 795 – Mobile Sensing in Smart Cities</td>
<td>TR</td>
<td>3-4:15pm</td>
<td>Shubham Jain (new faculty)</td>
</tr>
<tr>
<td>CS 795 – Malware Analysis and Reverse Engineering</td>
<td>ONLINE</td>
<td></td>
<td>Aftab Ahmad</td>
</tr>
<tr>
<td>CS 795 – Advanced Numerical Methods</td>
<td>TBA</td>
<td></td>
<td>Chrisochoides</td>
</tr>
</tbody>
</table>

More info about these courses at [https://graduate.cs.odu.edu/resources/fall-2017-sched/](https://graduate.cs.odu.edu/resources/fall-2017-sched/)
Tips from Former MS Students

Things I wish I knew when I started...

• Know your area of interest in problem solving.
  – Get fundamentals right by taking pre-requisite and basic courses.
  – Approach our GPD or Prof. to discuss your area of interest.
  – Learn about advanced courses (600, 700 level) from Prof. and Seniors.
  – Develop programming confidence and read recent developments.

• Gain more practical knowledge by working with Professors.
  – Read about Professor’s area of research from the Univ. CS website.
  – Email resp. Prof. your interest to work for their lab and your profile.

• Learn solving real world problems from Internship experience.
  – Develop your course projects close to real world examples.
  – Maintain projects with good standard and documentation on GitHub.
  – Start applying for a full time Summer Internship from Nov.
Things I wish I knew when I started...

• Seriously consider the Thesis or Project option
  – Take initiative to learn about professor’s research (they love talking about it!) to get a better idea of what you may wish to research
  – Potential employers will ask about your projects and to see your github commits

• It is good to listen to seniors’ advice, but take it with a grain of salt
  – Sometimes what was right for us, is not right for you
  – Some people just give really bad advice

Things I wish I knew when I started...

• Take the courses you want
  – Not just the ones everyone else is taking
  – Not just the ones you heard have the least amount of work

• Go to office hours

• Take advantage of making friends that are from a different culture than you!
Tips for becoming a GTA

• Keep applying, even if you did not get a position previously

• Make a good impression on your professors

• Constantly work to improve your English
  – Study for the SPEAK test
  – Students often have a hard time understanding accents, especially at first
  – You may also have a hard time understanding their accent

Tips for Doing Well in Courses

• Expect more practical knowledge vs. theory

• Interact with the professor

• Take part in class discussion

• Stay on top of studies so if there are any problems, you can fix them early
Internship

• Job Fair
  – Two major Job Fairs on campus each semester
  – Public job fairs (from other universities)

• Online Websites
  – Company official website (career page)
  – Monster.com, Indeed.com, Dice.com, LinkedIn.com

• References
  – Friends, Alumni, Professors

• Paperwork with VISA office
  – Take 10 business days for approval
  – Pay tuition for 1 credit
  – Participate CPT workshop (required)

Policies
Working in the Department

- Graduate Teaching Assistant (GTA)
  - requirements: pass SPEAK test (non-native English speakers), pass GTAI, have a good GPA
  - if you’ve submitted GTA application and are a candidate, you’ll be registered for the SPEAK test

- Graduate Research Assistant (GRA)
  - arranged with individual faculty members

- Each of these positions comes with a stipend and at least 50% tuition support (varies based on salary and MS/PhD)

- There are a few opportunities for graduate assistant positions in other departments
  - these may or may not come with a tuition waiver

Full-Time Requirements

- Full-time is 9 credit hours

- GTA
  - 9 graduate credit hours (prerequisites don’t count)

- GRA
  - 6 graduate credit hours
  - international students must complete reduced course load (RCL) form

- Graduating semester
  - # of courses needed to graduate
  - if < 9, must complete M4 form (MS students)
  - if international, must also complete RCL form
International Notes

• Full-time requirement: 9 credit hours

• Exceptions (reduced course load)
  – GRA - 6 credit hours
  – 1st semester (if not GTA) - 6 credit hours
  – graduating semester - # of credit hours needed for graduation

• Only allowed to take 1 online course per semester
  – cannot be your only course

Prerequisites

• Goal is to ensure that you are prepared for graduate work in computer science

• Undergrad courses may be more available during summer

• Ways to complete
  – submit a request to GPD for a waiver (because of previous training)
  – complete an approved online course (e.g., Coursera, Udacity)
  – take the course and make 'B' or better
  – challenge the course (talk to the instructor of the course for requirements, must do at least 'B' level work). The instructor must email the GPD with the results of the challenge.
Need a Form Signed by GPD?

• Submit form to Ariel Sturtevant well in advance of deadline
  – if urgent, submit the form to Ariel and email the GPD

• Come to GPD's posted office hours

Academic Integrity

• Academic integrity (Honor Code) is taken seriously at ODU

• Typical class policy:
  – All assignments are to be completed on your own.
  – No sharing of code is allowed. This includes discussion about the design of a programming assignment solution.
  – Written assignments are expected to be in your own words.
What is Cheating/Plagiarism?

• Turning in another student's work as your own

• *Giving* unauthorized assistance is just as much of an offense as *receiving* unauthorized assistance.

• For coding
  – copying or sharing source code for assignments
  – obtaining solutions from the Internet and submitting them as your own

What is Cheating/Plagiarism?

• For writing
  – copying material from a source text without proper acknowledgment
  – copying material from a source text, supplying proper acknowledgment, but leaving out quotation marks

• "In your own words" means that the text should be your own and not a paraphrase of others' work

• Just because someone wrote it better than you would have *does not* make it OK to copy their words.
You've been warned. You are responsible for knowing the rules or asking for clarification.

Beware the Group Mentality

• Most of your assignments will be individual  
  – all of the work must be your own

• Don’t sit next to friends in the lab

• Don’t work problem sets together

• Instructors (and your fellow students) are very good at identifying cheating

• Cheating can put your graduate assistantship at risk
How to Get Your Advisor Hold Cleared

Steps

• Review these slides and the materials at http://graduate.cs.odu.edu/

• Review the Fall 2017 course schedule

• From an ODU email account (either odu.edu or cs.odu.edu), send me (mweigle@cs.odu.edu) an email with the following information:
  – Name
  – UIN
  – Prerequisites required, if any
  – Planned courses to take for Fall 2017

• If you have questions about courses before registering, come to GPD office hours or send me an email
Questions / Advising

Dr. Michele Weigle, GPD
mweigle@cs.odu.edu
E&CS 3206
http://www.cs.odu.edu/~mweigle/Main/Sched