College of Information and Computer Sciences
UG CS Welcoming
Spring 2017
Welcome!
Computer Science at UMass began in 1964 with three faculty and has been growing ever since.

In 1978, the undergraduate major in CS was established.

By 1980 there were 80 undergraduates...
How Popular are We?

Total Majors by Year

Number of Majors

Year

How Popular are We?

Total Incoming Fresmen by Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Fresmen</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>60</td>
</tr>
<tr>
<td>2011</td>
<td>100</td>
</tr>
<tr>
<td>2012</td>
<td>125</td>
</tr>
<tr>
<td>2013</td>
<td>150</td>
</tr>
<tr>
<td>2014</td>
<td>200</td>
</tr>
<tr>
<td>2015</td>
<td>250</td>
</tr>
<tr>
<td>2016</td>
<td>300</td>
</tr>
</tbody>
</table>
CS By The Numbers Today!

- 970 Majors!
- 47 Minors
- 88 Minors
- ~250 Applications a year
- ~200+ UGs graduating each year (Feb, May, Sept)
- 59 Faculty
- 334 Graduate Students
  - 178 PhD track
  - 156 MS track
Computer Science
Undergraduate Academic Program Officers

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair</td>
<td>James Allan</td>
</tr>
<tr>
<td>Associate Chair for Academic Affairs</td>
<td>David Barrington</td>
</tr>
<tr>
<td>Undergraduate Program Directory (UPD)</td>
<td>Tim Richards</td>
</tr>
<tr>
<td>Chief Undergraduate Advisor (CUA)</td>
<td>Gordon Anderson</td>
</tr>
<tr>
<td>Undergraduate Program Manager</td>
<td>Darlene Fahey</td>
</tr>
<tr>
<td>Undergraduate Program Assistant</td>
<td>Tara LaFlamme</td>
</tr>
<tr>
<td>Honors Program Director</td>
<td>Ben Marlin</td>
</tr>
<tr>
<td>Peer Advising Manager</td>
<td>Bill Verts</td>
</tr>
</tbody>
</table>
BS in Computer Science

• Comprehensive Training in Computer Science

• BS-CMPSCI Students Prepared For
  – Graduate Study in CS
  – Most Technical Entry-Level Jobs in Industry
BA in Computer Science

- Computing Focus Degree in CS

- BA-CMPSCI Students Prepared For
  - Application of computing to a secondary area
Timeline & Progress

• Planning is important
  – CS Classes you need to take
  – Requirements you need to fulfill

• Keep track of your progress!
  – Tracking Forms
  – Download from https://www.cics.umass.edu
### Computer Science Bachelors of Science

- **6 core lower-division CS courses**
  - 121, 187, 220, 230, 240, 250

- **8 upper-level CS electives**
  - 311
  - 4 300+
  - 3 400+

- **4 mathematics courses**
  - 131, 132, 233/515, 235

- **Junior Year Writing**
  - 305

- **Integrative Experience**
  - 320, 326 (can also satisfy elective)

- **Laboratory Science Courses**
  - CHEM 111 (or 121) and 112 (or 122)
  - GEOL 101/lab (or 103/131, or 105/131)
  - PHYSICS 151 (or 181) and 152 (or 182)

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**Table:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Subject</th>
<th>Year</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>121</td>
<td>Programming Methodology</td>
<td>Semester:</td>
<td>Grade:</td>
</tr>
<tr>
<td>187</td>
<td>Data Structures</td>
<td>Semester:</td>
<td>Grade:</td>
</tr>
<tr>
<td>220</td>
<td>Intro to Problem Solving</td>
<td>Semester:</td>
<td>Grade:</td>
</tr>
<tr>
<td>230</td>
<td>Comp Sys Principles</td>
<td>Semester:</td>
<td>Grade:</td>
</tr>
<tr>
<td>240</td>
<td>Reasoning Under Uncertainty</td>
<td>Semester:</td>
<td>Grade:</td>
</tr>
<tr>
<td>250</td>
<td>Intro to Computation</td>
<td>Semester:</td>
<td>Grade:</td>
</tr>
<tr>
<td>311</td>
<td>Algorithms</td>
<td>Semester:</td>
<td>Grade:</td>
</tr>
<tr>
<td>300+</td>
<td>Social Issues in Computing (or ITW in another dept)</td>
<td>Semester:</td>
<td>Grade:</td>
</tr>
<tr>
<td>320</td>
<td>Junior Year Writing</td>
<td>Semester:</td>
<td>Grade:</td>
</tr>
<tr>
<td>326</td>
<td>Integrative Experience</td>
<td>Semester:</td>
<td>Grade:</td>
</tr>
<tr>
<td>CHEM 111</td>
<td>Lab Science Courses 8 credits</td>
<td>Semester:</td>
<td>Grade:</td>
</tr>
<tr>
<td>GEOL 101</td>
<td>Lab Science Courses 8 credits</td>
<td>Semester:</td>
<td>Grade:</td>
</tr>
<tr>
<td>PHYSICS 151</td>
<td>Lab Science Courses 8 credits</td>
<td>Semester:</td>
<td>Grade:</td>
</tr>
</tbody>
</table>

**Notes:**

- Students are strongly advised to take 220 and 230, or 240 and 250 together in the same semester.
- University and GenEd requirements should be checked on SPIRE. This form is for guidance only.
Computer Science Bachelors of Arts

5 core lower-division CS courses
- 121, 187
- 3 out of 220, 230, 240, 250

5 upper-level CS electives
- 5 300+

2 mathematics courses
- 131, 132
- 127, 128 can substitute, but do not satisfy prerequisites for 200-level cores

Junior Year Writing
- 305

Integrative Experience
- 320, 326 (can also satisfy elective)

Foreign Language

Four-Course Outside Concentration
- Approved by 1st semester senior year
ROCKs
Leadership and Outreach Committee

• ROCKs Students…
  – are Juniors or Seniors in CS
  – have been successful in the CS program
  – serve as Student Ambassadors
  – are knowledgeable about the CS program
  – recruit new CS students
  – give tours
  – represent CS at university open houses and other outreach events
  – answer questions from prospective students
ACE
Advising Center Committee

• ACE Students...
  – are Juniors or Seniors in CS
  – have been successful in the CS program
  – are knowledgeable about the CS program
  – are knowledgeable about CS courses
  – know how to navigate the program to ensure success as a CS student
Where can you find ACE?

USpace
Room 144
Computer Science Building

To be the **first point of contact** to first-year students, applicants to the major, and anyone interested in CS!

To be **excellent** peer advisors to the undergraduate CS population!
First Year Student Advising

• Have a Freshman Advisor
  – Neena Thota
  – froshadvising@cs.umass.edu

• CS Peer Advisors
  – ACE is the place!

• Registration/Advising Meeting

  Registration for Fall 2017
  Will be announced
Second Year Student Advising

• **Have a Sophomore Advisor**
  – Marc Liberatore
  – [sophadvising@cs.umass.edu](mailto:sophadvising@cs.umass.edu)

• **CS Peer Advisors**
  – ACE is the place!

• **Registration/Advising Meeting**
  
  *Registration for Fall 2017*
  
  Will be announced
Post Grads & Transfers

• Faculty Advisors
  – Have been assigned to you

• Advising Appointments
  – Contact your advisor during registration period (they may contact you first, but don’t assume)
  – Be prepared to discuss your course selection
Getting Desired Courses

• *Have an early plan*
  – Have a plan B
  – Have a plan C

• *Register Soon*
  – During your registration period

• *Overrides*
  – Process to manage course requests
  – Takes time, be patient - you will hear from us
Advising & Tracking Forms

- You are responsible for your progress!
- Fill this out!
- Keep it updated!
- Bring it to Advising Meetings!

It will help you and your advisor make good choices that will help lead you to success!
Advice & Strategies

• **Focus on Doing Well!**
  – Do not overload

• **Be Proactive**
  – Contact ACE or advisor
  – Update your tracking form

• **Do not rush your degree!**
  – It is enticing to finish early, but…

• **Get involved!**
Get Involved!

- ACM
  [http://umass.acm.org](http://umass.acm.org)
- UMass Programming Team
- CS Women
- USpace (Room CS 144)
- Leadership Committees
  - ACE Peer Advising
  - ROCKs Recruiting & Outreach
Research Opportunities

• **Research Labs**
  – Lots of opportunity to participate!
  – Great for jobs and graduate school in CS!

• **Independent Studies**
  – Work individually with a faculty member

• **Honors Program** ([https://www.honors.umass.edu](https://www.honors.umass.edu))
  – Departmental honors / capstone experience

• **Paid Undergraduates**
Internship Opportunities

• Where do CS students get internships?
  – BBN/Ratheon, Cisco, EMC, Fiksu, Google, Yahoo!, TripAdvisor, Vistaprint, Amazon, Microsoft, LinkedIn, General Dynamics, …

• How do they do this?
  – Attending Career Fairs (several at UMass)
  – Solid Resume, Start 1st Semester Sophomore Year
  – UMass CareerConnect
    http://umass.experience.com/experience/login
I Need Help!

When you need help talk to an advisor.

- ACE in CS Building Room 144
- Email your advisor on spire
  - froshadvising@cs.umass.edu
  - sophadvising@cs.umass.edu
- Make an appointment with your assigned advisor
- Make contact with someone!
Final Thoughts...

• You are ultimately responsible for your own success.

• We provide as much help as possible to ensure that
  – But, you need to talk to us so we know you need it!

• Plan often and plan early.
  – Be prepared to change your plan if it doesn't work out

• Be successful in your courses
  – This will keep you on track for graduation

• Monitor your academic requirements report (ARR)
Most importantly…

Have Fun!

Enjoy your time here - it goes fast!
Computer Science
Welcomes You!