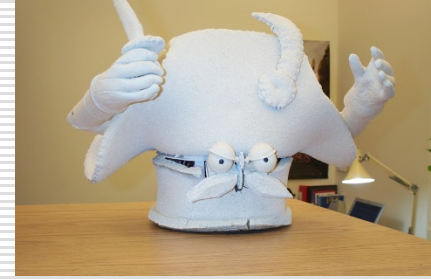
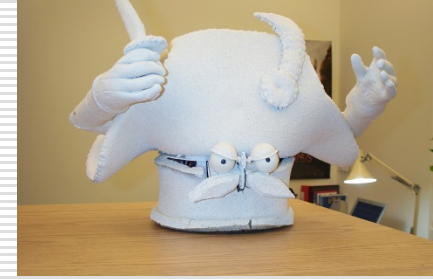


Computer Science & Engineering Department



Robert McCartney
Director of Undergraduate
Computing Education
ITE 239
860-486-5232
robert@enr.uconn.edu

The Tower and the Glass Balls



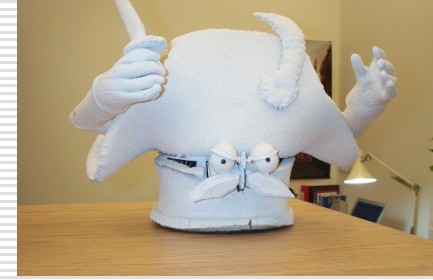
Given a tower of N floors, one wants to find the lowest floor from which a glass ball will break once it falls.

If there is only one such ball, then the search for the “breaking floor” must be linear. That is: throw the ball from the first floor, then from the second, and so on, until the ball breaks.

But, suppose there are two identical balls...

(we will return to this later)

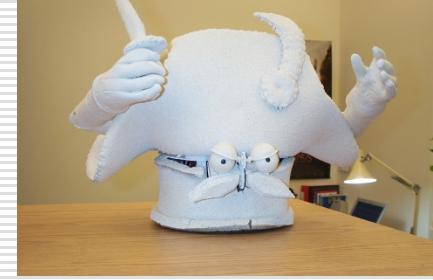
About Us



Computer Science and Engineering Department

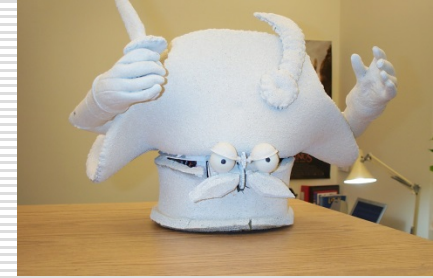
- 27 Faculty members (all but one in Storrs)
 - Three degree programs for undergraduates
 - Integrate research and undergraduate education
 - Provide extensive hands-on experience to enhance the material presented in the classroom
-

Degree Programs



- ❑ Computer Science & Engineering (223)
- ❑ Computer Science (165)
- ❑ Computer Engineering (44)

(plus graduate degrees: M.S., Ph.D) (51,90)

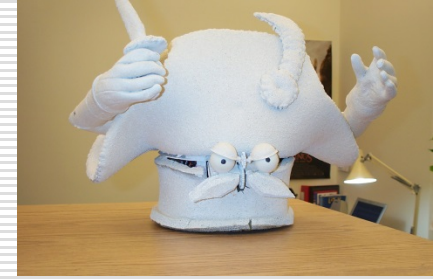


Enrollment numbers

Program	2008	2009	2010	2011	2012	2013
CS & E	135	134	154	166	190	196
Computer Science	99	89	86	88	102	156
Computer Engineering	61	46	53	43	38	56
Total	295	269	293	297	330	408

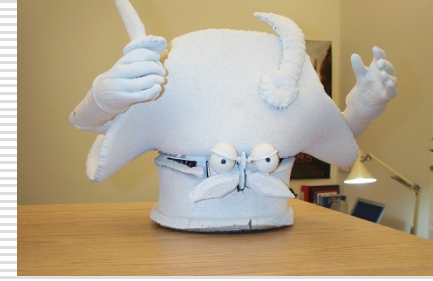
2014: 500+

Three programs

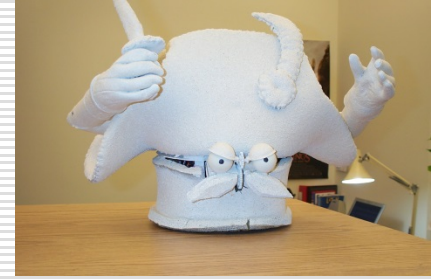


- Each program includes central areas of computer science: programming, algorithms, mathematical foundations, architecture, and operating systems
 - Programs differ in their emphasis and advanced topics
-

Computer Science and Engineering Degree



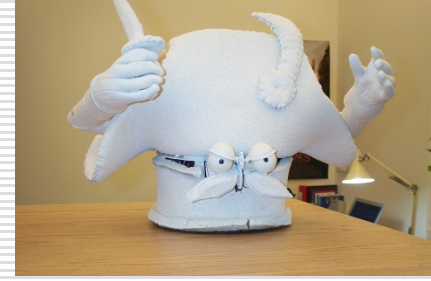
For students interested in:



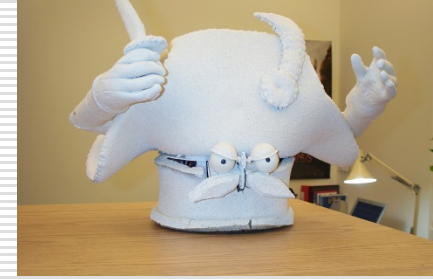
-
- Computing across the spectrum, from organization and architecture to software and theory

 - Areas requiring background in either/both hardware and software
 - Graphics and animation systems
 - Robotics
 - Hardware/software co-design
 - Networked and embedded systems
-

Computer Science Degree



For students interested in

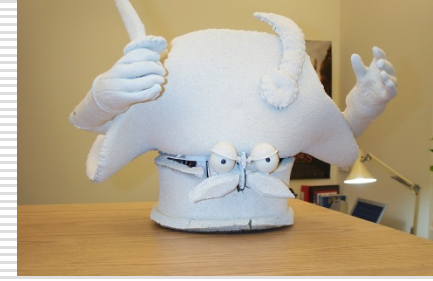


-
- Theory and practice of computing

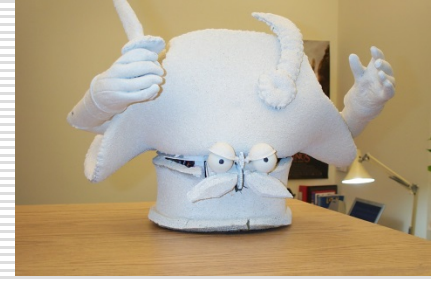
 - Combining computer science with study/work in other fields
 - Cognitive Science
 - Digital Media & Design
 - Computational physics
 - Business
 - Education
 - etc...

Fairly convenient to do a minor in something else

Computer Engineering Degree

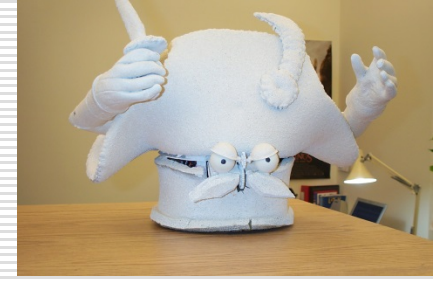


For students interested in:



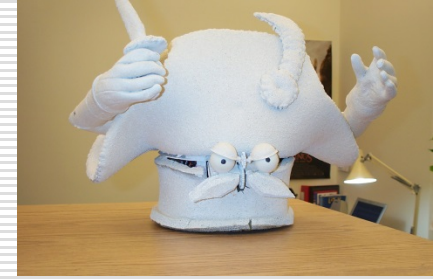
-
- Design and manufacture of computer systems
 - The physical components of computer networks
 - Interfacing devices to computers
 - Embedded computer systems
-

What if I don't know which program I want?



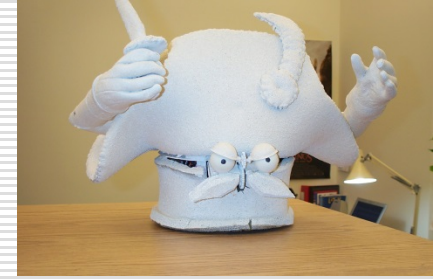
-
- ❑ All Engineering programs are the same for the first semester*.
 - ❑ All of the computing programs are the same for the first year, and adjustments to deal with indecision can be made for the sophomore year.
 - ❑ Engineering 1000 helps students make career decisions.
-

Other Opportunities



- Undergraduate research
 - Minors
 - Bioinformatics
 - Business
 - Cognitive Science
 - Entrepreneurship
 - Materials Engineering
 - Mathematics ...
 - Study Abroad
 - Eurotech Program
 - Internships
-

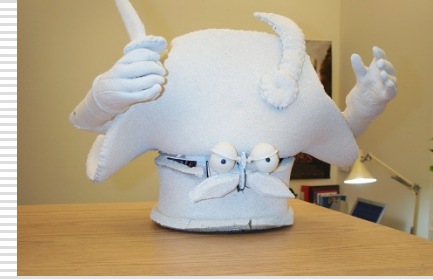
Accreditation



-
- ABET accredited
 - Computer Science and Engineering
 - Computer Science
 - Computer Engineering

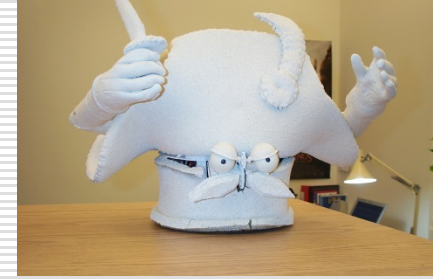
Ensures that programs meet standards, and are committed to continuous improvement

Recent (and Projected) Improvements



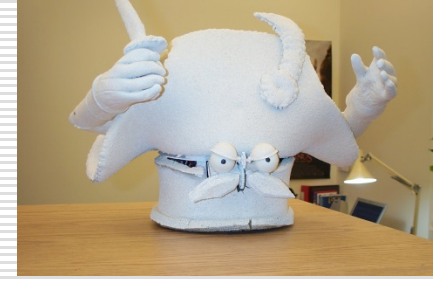
-
- ❑ Enhanced introductory computing course for CS, CSE, and Comp. E.*
 - ❑ Integration of senior project courses into a full-year course
 - ❑ New undergraduate courses in Cryptography, Computational Geometry, Systems programming, Systems Biology
-

How long until I finish?



-
- ❑ The Computer Science curriculum is 120 credits.
 - ❑ The Computer Engineering and the Computer Science & Engineering degrees are 126 credits.
-

Why should I choose UConn CSE?



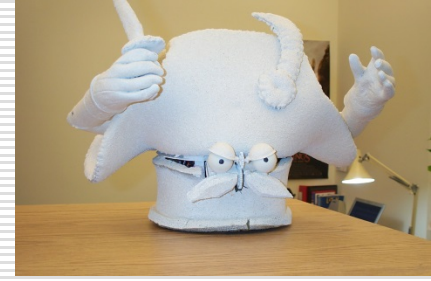
Flexible offerings

High-quality faculty and fellow students

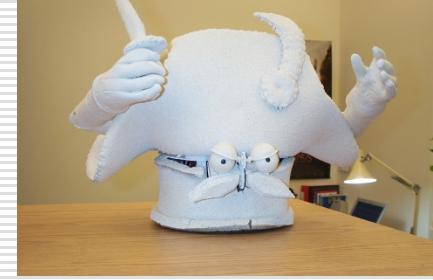
Opportunity to succeed

Ask the students when you tour around!

What about jobs?



The Tower and the Glass Balls



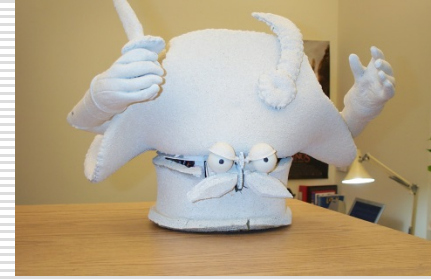
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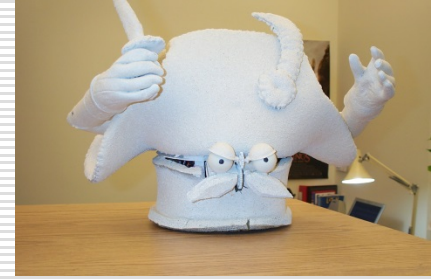
But, suppose there are two identical balls. Thus, one ball can be used for a “coarse-grain” search until it breaks. Then, the other ball can be used for a “fine-grain” search.

Develop an efficient algorithm for performing the search with minimal number of throws.

Questions?



On with the tours!



-
- Talk to students
 - Ask questions

Thank you!
