Active Recruiting

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University of Virginia
Active Recruiting - Outline

• Craft messages → “ICBI”
  • Interest
  • Confidence
  • Belonging
  • Identity
• Reach out
• Raise visibility
• Persuade personally
Fight the status quo
Active Recruiting

- Craft messages
- Reach out
- Raise visibility
- Persuade personally

WHAT AM I SUPPOSED TO DO?
Why Active Recruiting?

It Works!
Data from CS Teachers Who Have Used Active Recruiting

<table>
<thead>
<tr>
<th></th>
<th># Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS AP</td>
<td>401</td>
<td>48%</td>
</tr>
<tr>
<td>CS AP Girls</td>
<td>107</td>
<td>73%</td>
</tr>
<tr>
<td>CS AP URM</td>
<td>71</td>
<td>53%</td>
</tr>
<tr>
<td>CS non AP</td>
<td>684</td>
<td>18%</td>
</tr>
<tr>
<td>CS non AP Girls</td>
<td>372</td>
<td>40%</td>
</tr>
<tr>
<td>CS non AP URM</td>
<td>208</td>
<td>22%</td>
</tr>
</tbody>
</table>
How to Craft Messages: ICBI

- Confidence
- Belonging
- Interest
- Identity
Ignite your students’ interest
Describe careers that spark diverse student interest

- Flexibility: industry, geography
- Time with family
- Job projections
- High salaries
- Work with others
- Socially relevant
- Satisfied professionals
## Appeal to Students’ Current Interests & Goals

Percentage Declaring STEM Major Clusters and Non-STEM Major by Student Characteristics., 2017

<table>
<thead>
<tr>
<th>Major</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>Computing and Math</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>Engineering and Technology</td>
<td>20%</td>
<td>4%</td>
</tr>
<tr>
<td>Medicine and Health</td>
<td>3%</td>
<td>12%</td>
</tr>
<tr>
<td>Non-STEM</td>
<td>55%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Source: ACT

Who will Declare a STEM Major? The Role of Achievement and Interests
## Appeal to Students’ Current Interests & Goals

### Majors Most Commonly Intended by Women in the U.S., 2013

<table>
<thead>
<tr>
<th>Major</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Professions</td>
<td>193,089</td>
</tr>
<tr>
<td>Business Management/Marketing</td>
<td>67,916</td>
</tr>
<tr>
<td>Visual &amp; Performing Arts</td>
<td>59,358</td>
</tr>
<tr>
<td>Biological &amp; Biomedical Sciences</td>
<td>58,974</td>
</tr>
<tr>
<td>Psychology</td>
<td>51,446</td>
</tr>
<tr>
<td>Education</td>
<td>50,474</td>
</tr>
<tr>
<td>Undecided</td>
<td>49,244</td>
</tr>
<tr>
<td>Computer &amp; Information Sciences</td>
<td>4,700</td>
</tr>
</tbody>
</table>

Source: College Board
Making Messages Meaningful: Students’ Interests

- Scanning DNA for childhood diseases
- Designing and displaying new fashions
- Restoring and preserving art work
- Designing secure databases to record human rights abuses while shielding the identities of victims or witnesses

Source: dotdiva.org
How to Craft Messages: ICBI

- Confidence
- Belonging
- Interest
- Identity
Cultivate Confidence
Cultivate Confidence

- Showcase successes of current & former students
- “You’d be great at this”
- “I want you in my class”
- Provide opportunities for experiencing success
- Describe how the course promotes success
Emphasize Growth in Intelligence

See Carol Dweck’s work
How to Craft Messages: ICBI

Choice of Occupation

- Confidence
- Belonging
- Interest
- Identity
Build belonging, inclusivity

- Recruit in groups
- Have friends recruit friends
- Use inclusive language
- Set-up a welcoming physical environment
- Tell them you want them to study computing
How to Craft Messages: ICBI
Active Recruiting - Instill Identity
Active Recruiting - Instill Identity

Describe Opportunities and Promote Involvement
Describe Opportunities and Promote Involvement

✓ Community Service and Outreach
✓ Conference attendance
✓ Poster presentation
Active Recruiting - Instill Identity

Provide Intentional Role Models
Intentional Role Models to Help Build Identity
How to Craft Messages: Capitalize on ICBI

- Confidence
- Belonging
- Interest
- Identity
How to convey your messages
Avoid “Mythbusting”

Don’t plant weeds!

• May actually create stereotypes
• Once implanted, difficult to dislodge

See “How Warnings about False Claims Become Recommendations”
www.acrwebsite.org/topic.asp?artid=250
Locate Your Audience

On Campus
• Undecided students
• Introductory computing courses
• Student organizations
• Student centers/Women’s centers

Off Campus
• High schools (teachers and counselors)
• Local organizations
• Education & career development programs

Resource: NCWIT Strategic Planning Guide
Reach Out to Your Audience

- Use media such as posters, announcements, videos
- Show up at orientation, elective fairs
- Connect current students with prospective students
- Other advisors, career placement personnel
- Collaborate with student organizations
- Social media
Example of Active Recruiting media

Biology Meets Computers

Top reasons to major in computer science with an emphasis in biology
- Computing crosses all disciplines
- You can solve complex and challenging biology-related problems
- You can make a positive difference in the world
- There are lots of high-paying, flexible jobs
- You could earn $40,000 on internships while in school
- There are many opportunities for bio-related computing
- Be part of a team of innovators with different backgrounds and fields
- Create the future — the sky is the limit

Things you could do with a computer science degree
- Write software that helps scientists monitor the environment
- Develop software to improve medical technology that saves lives
- Work with other scientists to find cures for cancer by speeding up their research through computer modeling
- Help scientists discover the secrets of life

I’m interested — what next?
- Change your major: http://oregonstate.edu/ registrar/academic-program
- Learn more: eecs.oregonstate.edu/biology-meets-computers

Scan to learn more about combining biology and computer science.

School of Electrical Engineering & Computer Science
Oregon State University
1148 Kelley Engineering Center
Corvallis, OR 97331-5501

Computer Science + Biology = Endless Opportunities

If you’re interested in learning more about our applied computer science program, contact one of our advisors:

Amy Vincent
541-737-4855
amy.vincent@oregonstate.edu

Calvin Hughes
541-737-3168
Calvin.Hughes@oregonstate.edu
eecs.oregonstate.edu/biology-meets-computers
Show Statistics

• Salaries are High
• Jobs are Plenty
• Careers are Satisfying
Make computer science VISIBLE
Make Your Course Projects Visible

• Posters
  • outside classroom
  • in the library
• Webpages
• Events
PERSONALLY PERSUADE
Treat Intro Courses as Recruiting Opportunities

- Intro to your major
- CS-Zero courses
- Computer literacy courses
- Service courses (e.g., to engineering students required to take CS)
Overcome Objections

- Use student’s names
- When students raise objections?
  - Listen and acknowledge beliefs
  - Offer persuasive evidence
  - Encourage and support
Don’t let refusal be permanent

Can we talk again before you choose your courses for next term/year?
Don’t let refusal be permanent

If not now,. . . .
consider CS next semester/term/year.
Control and Share Your Message

• Tailor, test, refine message content for members of under-represented groups and their influencers
• Create and share messages others can deliver on your behalf
  Orientation, admissions staff
  Advisors
  Students
References

• Lighthouse thanks Joanne McGrath Cohoon (University of Virginia; NCWIT) and Lecia Barker (NCWIT; University of Colorado at Boulder) for their important contribution to the content in this presentation.

• Resources for Community College:
  • https://www.ncwit.org/resources/ncwit-resources-community-colleges
Sources Used


Questions?
Thank You!
Using active recruiting strategies, create a poster/flyer to recruit diverse students to your course.

- Review: activity instructions and peer assessment rubric; examples of posters/flyers
- Plan: course/session/program; target audience(s)
- Prepare: become familiar with flyer creation tools such as Apple Pages, Smore