Iowa State University
College of Engineering

ENGINEERING CAREER SERVICES

Iowa State University
College of Engineering
2014 Orientation
Topics for Today

• Introduction to ECS & Services Provided
• Importance of Internships
• The Job Market
• What Employers Want
• Career Development Plan
• Questions
Why Engineering Career Services?

Our Goal:
Provide resources and opportunities to help engineering students develop professional skills and obtain full-time employment upon graduation.
The Employment Process
is a Multi-Year Process that Starts Freshman Year

Step 1: Understand Employers and the College Recruiting Process
Step 2: Determine Career Goals and Skillset
Step 3: Identify Preliminary Target Employers and Industries
Step 4: Develop Effective Marketing Materials
Step 5: Search for Specific Employment Opportunities and Research
Step 6: Network (at Career Fairs and Otherwise)
Step 7: Interview and Follow-up
Step 8: Evaluate Offers
Step 9: Sign Employment Contract and Celebrate
Step 10: Inform Engineering Career Services and Discontinue Your Job Search
Services Provided

• Career Development Seminars & Classroom Presentations
• Individual Advising
• CyHire
• Career Fairs
• On-Campus Interviews
• Experiential Education
• Employer Relations

Focused Solely On Engineering Students & Alumni

All Services Provided at No Cost
CyHire

Student, Alumni and Employer Services

• Job Postings:
  – Full-time: 3,000+/year
  – Internships: 1,000+/year

• On-Campus Interview Scheduling

• Company Information

• Career Events

High Utilization

• Students: 1,000+/day
On-Campus Interviews

• The day after the fall career fair over 1,000 interviews will be conducted
• In a given year, between 4,000 and 5,000 on-campus interviews will be conducted
Experiential Education in the Workplace (Co-ops and Internships)

Learning outside of the traditional classroom environment

A place to:

• Make the connection between theory and practice
• Build practitioner skills and workplace habits
• Develop and demonstrate competencies

Tell me and I will forget.
Show me and I may remember.
Involve me and I will understand.

Chinese Proverb
Forms of Experiential Education

• **Cooperative Education** (2%) - Alternating semesters of work and on-campus study. 12 months min.

• **Engineering Internship** (26%) - One work period of a semester or a semester plus a summer.

• **Summer Internship** (46%) - One work period of at least ten weeks.

• **Parallel Internship** (1%) - Work 20 hours/week, ½ time course load, with time-equivalent to regular co-op or internship.
Experiential Education Program
Barrier Free Environment

• Not required but highly encouraged
• No defined start date
• No GPA requirement but the student must be in Good Academic Standing
• No fees to student or employer
• No tuition and full-time student status is retained
Money:
Another Benefit of Experiential Education

Text Message - Son to Parents

Dear Mom and Dad,
School is really great. I am making lots of friends and studying very hard. I love ISU. Send me a card, as I would love to hear from you.

Love, Your Studious Son

Reply - Parents to Son

Dear Son,
We know ISU is a great school. AstroNomy, ecoNomics, and engineering techNology should be enough to keep even an hoNOr student busy. Do NOT forget that the pursuit of knowledge is a NOble task, and you can never study enough.

Love, Mom and Dad
Co-op and Intern Earnings
All Engineering Internships & Co-ops are Paid Positions

Academic Year 2012 – 2013
408 Companies employed
948 Students who earned $11,561,000+

Numbers reflect registered work experiences only

ISU Alumnus, Clayton Anderson
Aero Eng, ‘83

ISU Intern

IOWA STATE UNIVERSITY
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Does Experiential Education Matter?

Graduates Reporting Jobs at Graduation:

- **Co-op:** 82%
- **Intern:** 80%
- **Summer:** 75%
- **No Ex Ed:** 54%

2005/06 to 2012/13
~7000 Graduates Reporting
In-Profession Placement

- 6 Months Post-Grad: Approx. 99%
- 10 Year Average: 95%
- In a Strong Economy: Approx. 99%
- Recessionary Economy: Approx. 90%
The Engineering Job Market is Strong

Driven By:
• Need for Innovation
• Increasingly Technical World
• Retiring Baby Boomers

Retirement Period (65 yrs.):
2011 to 2029; Peaking 2020
College Recruiting Process

• On-line Job Board (CyHire)
• Career Fairs
• Company Information Events
• Networking Events
• On-Campus Interviews
• On-Site Interviews

Lead to Job Offers!

The Best Time to Connect with Employers is While a Student!
Who Hires ISU Engineers?  
(Percentage of Grads Hired by Each Group)

30 employers recruit heavily on campus  
40%  

150 employers regularly recruit at ISU  
40%  

Over 400 employers don’t come to campus but connect with graduates through CyHire or other means  
20%  

Data for a 5 year period

Employer Relations = Job Opportunities

IOWA STATE UNIVERSITY  
College of Engineering
Why Do Employers Hire ISU Engineers?

Employers want students with:

• A good understanding of engineering fundamentals
• Technical & Professional skills
• Hands-on work experiences (AKA Experiential Education)
• Positive attitude

ISU’s excellent curriculum, great student organizations, and strong experiential education programs all contribute to meeting these needs.
Understanding Employers of Engineers

15 Skills Employers Most Want to See

- Engineering Knowledge
- Communication
- Planning
- Professionalism
- Quality Orientation
- Safety Awareness
- General Knowledge
- Cultural Adaptability
- Teamwork
- Innovation
- Analysis & Judgement
- Continuous Learning
- Integrity
- Customer Focus
What employers look for on resumes...

• Matching interests
• Education & GPA
• Engineering & other skill-building work experiences
• Teamwork & leadership experiences
GPA and Job Opportunities

• A 3.00 GPA or better will meet the qualifications of most job openings
• Generally, the higher the GPA the better
• Focus on grades should not result in exclusion of internships and other leadership/team building activities
“Begin with the End In Mind”

Stephen R. Covey, The Seven Habits of Highly Effective People
# Four-Year Career Plan

## Freshman Year
- Attend Clubfest and get involved in an engineering student organization.
- Bookmark and review the Engineering Career Services website (see URL below).
- Listen to Engineering Career Services in Engr 101 class and read “ECS” emails.
- Login and update your CyHire (Career Services Management System) account: cyhire@iastate.edu.
- Update your resume or create one. A resume is used to apply for all jobs!
- Attend company information sessions and ECS seminars to learn from employers and career service professionals.
- Attend the fall and spring career fairs to practice networking and learn about employers and future employment opportunities. Attend all fairs every year!

## Sophomore Year
- Volunteer for tasks or project leadership positions in your student organizations to develop teamwork, planning, communication and other skills.
- Revisit the ECS website and learn more about job search, resume development and other ‘best practices’ in preparation for an internship.
- Update your resume to reflect new leadership and/or work experiences.
- Refine your professional image by having a professional voicemail message and posting professional material on your social media accounts.
- Attend information sessions, seminars, and career fairs with the intent of developing and marketing yourself for internships.
- Use CyHire regularly to check job listings, track company on-campus events, research companies, and manage resumes and letters.

## Junior Year
- Attend an ECS resume seminar and update your resume.
- Attend seminars on cover letter writing, interviewing, etc. to refine your skills.
- Continue to seek out leadership positions and consider becoming an officer of a student organization.
- If your path is graduate school; work with faculty on an undergraduate research project, seek advice from faculty and grad students, begin researching schools, and prepare to take entrance exams.
- Plan your technical electives to match specialty areas and industry preferences.
- Attack the career fairs hard! Talk with companies big and small with a goal of obtaining multiple interview opportunities and land an internship!

## Senior Year
- Prepare well for the Fall Career Fair and recruiting season. Many companies attempt to fill most of their full-time positions during this period.
- Connect with past company contacts and network to create new contacts to maximize your full-time job opportunities.
- Continue utilizing CyHire as your primary job search tool but also use secondary sources like company web sites, other job boards, and professional organization resources since not all companies recruit at ISU.
- Attend an ECS seminar on evaluating job offers, and use our website information and salary data to prepare for the exciting task of considering offers.
- Just prior to graduation, please respond to our placement survey so we can satisfy our federal reporting requirements. The data also helps the ISU engineers that follow you!

Contact Engineering Career Services anytime you have a question or use CyHire to schedule a private advising session.

308 Marston Hall, 294-2540, www.engineering.iastate.edu/ecs
1st Year Action Plan For Students

• Bookmark ECS website
• Log-in to CyHire
• Build Resume
• Join and Be Involved
  – Student Orgs/Clubs
• Attend Career Workshops
• Talk to at least five employers at the career fair

I MUST take action to be successful
1st Year Action Plan For Parents

• Encourage and support:
  – Participation in career fair (9/23) and other networking events
  – Internships
  – Involvement in a variety of skill-building activities
  – Use of ECS services

• Help your student develop professional network (make introductions)
We look forward to helping you as you begin your careers as Engineers!

Engineering Career Services looks forward to supporting your sons and daughters as they begin their careers in engineering.
Summary: By the Numbers

$11,500,000+  Coop, Intern, combined annual income
$62,274    Average spring 2014 FT starting salary (BS degree)
4,000+     Engineering personal interviews/year
500+       Alumni return to recruit at each career fair
94 %       In-Profession outcomes *(six months post-grad)*
72 %       BS graduates that have professional experience
$19.00    Average hourly rate for coops/interns
2          Career fairs each year
1          Amazing adventure
0          Cost for comprehensive career services
Questions?