Preparing for your
FIRST YEAR ON THE JOB
AGENDA PROPOSAL

• Audience Analysis  WISE SKILL
• Motivation: Why you want to attend
• What Employers Seek
• What will help you succeed  KEYSTONE HABITS

• [1]Wise Skills
• [2]Culture
• [4]How to Accept an offer
SURPRISE

• Technical Skills alone will not get you a job or help you pursue your career

• Need to Understand Importance of Habits

• Critical Skills needed in 21st century
  – Deal with 24/7 frenetic pace
  – Compete in very tight job market
  – Information overload
Key “What Counts Factors” For Industry and Government

• Technical competence--the *sine qua non*
  – Depth and breadth
  – Ability to define and solve problems
  – Often companies are looking for people with postdoctoral experience

• Leadership/motivating others

• Working hard and working smart

• Ability to communicate orally and in writing, and influence others

• Ability to work well in teams
  – Interactions with people of diverse backgrounds
  – Ethical behavior and personal integrity
Expectations for the Scientist in Industry and Government

...provide leadership in research, technology, and projects which results in new and/or improved products, processes, or technical methodologies

- Acquire technical expertise quickly in new areas
- Make progress on projects through individual and team contributions
- Achieve understanding and commitment from management
- Supervise and develop technical expertise in other R&D personnel
Expectations for the Tenured/ Tenure-track Faculty Member

• At a research institution
  – Teach 1 or 2 courses per term
  – Obtain grant money*
  – Run a research group of graduate and undergraduate students*
  – Publish!*
  – Serve on departmental and university committees
• At a 4-year college
  – Teach as much as 12-15 contact hours every term*
  – Run an undergraduate research program
  – Serve on departmental and college committees

*Major considerations for tenure and advancement
Significant Traits of Educators

- **Technical expertise**
  - Potential to be world leader in chosen field
  - Scholar in area

- **Communication skills**
  - Essential for grants, publishing, recruiting
  - Effective in and out of field

- **Creativity and originality**
  - Independent thinker
    - New problems
    - Old problems/new ways
  - Focus on important problems
Significant Traits of Educators

- **Productivity**
  - Research publications primary measure
  - Quality and quantity matter
  - Remember: “hard work” often trumps “intelligence”

- **Pedigree**
  - Trained with or surrounded by excellent scientists
  - Impressed individuals with whom they interacted
## What Really Counts?
(1=minimally important, 3=very important)

### Academic Careers

<table>
<thead>
<tr>
<th>Metric</th>
<th>AA</th>
<th>BA/BS</th>
<th>PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching experience</td>
<td>2.88</td>
<td>2.52</td>
<td>1.73</td>
</tr>
<tr>
<td>Research proposal(s)</td>
<td>1.12</td>
<td>2.18</td>
<td>2.67</td>
</tr>
<tr>
<td>Qual. &amp; quant. of pubs.</td>
<td>1.32</td>
<td>2.34</td>
<td>2.84</td>
</tr>
<tr>
<td>Reputation of advisor(s)</td>
<td>1.17</td>
<td>1.94</td>
<td>2.61</td>
</tr>
<tr>
<td>Prestige of PhD institution</td>
<td>1.54</td>
<td>2.14</td>
<td>2.37</td>
</tr>
<tr>
<td>Campus interview</td>
<td>2.92</td>
<td>2.98</td>
<td>2.91</td>
</tr>
</tbody>
</table>

Source: *And Gladly Teach, 2nd Edition, 2006*, p. 28
Key Items

Excellent Research.

Research Director.

Excellent Writing Skills.

Effective Oral Communication.

Flexibility, Able to Move with the Times.

Motivator of Students.

Good Organization Skills.

Work Well with Others.

It’s All About People.
Key Items

Research.

Hard Work
Skills
Imagination

X Marks the Spot.

Philosophy – Hands On, Discovery, Independence, Follow Orders, Postdocs, Small, Large, Meetings, Training. FLAVORS.

Know the Literature – Know the People, Locations.

Unique Research – Niche, Competition, Don’t Step on Toes.

Ethical and Moral Concerns – Types of Research, Research Practices.

Remember Names and Faces and History and Locations.

Know Sources of Funding – Federal, State, Industry. Know Budgets.
Undergrad and Grad, > 1 Area Helps.

Take it Seriously.

Novel Teaching, Training Learning Ideas.

Outreach.

Technology – Keep Up or Find Someone to Help.

Know What You know + What You Don’t.

Study Effective Teachers. S, HW, I.

Labs, Theory, New Courses, Team Teaching.

These days – Teaching Component and Outreach w/r/t Funding.
What is the teaching load? Is there initial Tenure time relief?

Labs, Theory, New Courses, Team Teaching.

What kind of courses are you expected to Teach? Same courses? Hours required?

How is teaching evaluated? Weighting for promotion and tenure?

CRITICAL SKILLS: TIME MANAGEMENT
Start up package has to be realistic. Including: summer salary, support for post-docs, grad students, funds for Instrumentation, supplies, lab renovation Support....

Teach first year graduate course.

Recruit grad students: volunteer to present Recruiting seminars, review applications....

-Start with straightforward well-defined projects that can be handled by first year grad students
-Seek mentors who can review your draft /proposals
-Get info on “all” grant opportunities on and off Campus
-Become “visible” at all conceivable venues

CRITICAL SKILLS: SCIENTIFIC PROPOSAL WRITING
Wise Skills
Wise Skills

• Skills that separate equally qualified candidates [Hard and Soft Skills] for Job offers

Hard skills 30-40%

Soft Skills >50%

WISE
Some Critical Wise Skills

• Knowing the importance or FACE-TO-FACE Communication
• Audience Analysis
• Being a Committed Networker (CONNECTIONS, READY)
• NOW Habit (Lessen Procrastination)
Importance: Face to Face Communication

- 87%: essential in business negotiation
- 95%: critical to successful, long-lasting relationships

- Information-rich:
  - Listener: voice, tone, pace, nonverbals
  - Speaker: nonverbals, mental mindframe
  ~70% communication visual cues
Five Layers of Audience Analysis

1. Why are you here? Your choice, interest /Not your choice

2. Demographic homogeneity. For written work-make assumptions; For oral-test and adapt

3. Audience beliefs and attitudes; They can pick to tune in or out. Find resonating theme

4. Multicultural breadth; Affects language facility and styles of approach. Traditional: sit and listen/ Millenials: get bored fast, hunger action

5. Knowledge of topic; background
21st Century Networking

• Realizes most networking is **passive** information exchange

**MEMORABLE - POSITIVE APPEARANCE**

• Commands attention
• “No, thank you” means – not now.
• Don’t take it personally. Persistently re-package.
• Know about “Gate-keepers”

**COMMITTED NETWORKING:**
Committed Networking

• Need to re-think networking; can be trivialized and too passive

• **Committed networking**: Helpful, persistent, memorable, valuable and command (not demand) attention
  – Network needs to be ready when needed
  – Proactive and outgoing– network needs to know what you want and need
  – What are you good at; what do you aspire?
NOW Habit
Who admits to procrastinate?
NOW Habit
Who admits to procrastinate?

- Who has resisted authority by delaying?
- Who has delayed doing something for fear of failing or not meeting expectations?
- Who has delayed as a defense mechanism from doing our best?
Procrastination

• HABIT used to combat anxiety, fears and self-doubts. ESCAPE— busy work.

• Treat everything as urgent. RESULT— actions on spur of the moment requests, many interruptions, takes more time to re-start and get into work flow.
NOW Habit – Neil Fiore

• Recognize your procrastination triggers
  – Emotional origins (feelings)
  – Set your Goals and steps to reach them

• Schedule play (your avoidance mechanism)

• Define and tune into your “flow states”
  – Peak work period of our own “volition”
  – You are “in control” or part of a harmonious team
  – Time “flies by”
NOW Habit – Neil Fiore

• Some ways to recognize your flow states
  – Make progress despite setbacks
  – Get results on time and within budget, meeting or exceeding expectations
  – Continuously improving yourself and your skills
  – Adapt to stressful situations and use pressure to motivate for achievement
  – “It feels good”

• Schedule play (your avoidance mechanism)

• Define and tune into your “flow states”
  – Peak work period of our own “volition”
  – You are “in control” or part of a harmonious team
  – Time “flies by”
KEYSTONE HABITS - Duhigg

• Habitual process that over time transforms everything.
• Exercise, food journaling, grit, Starbucks mantra, “wise skills”
  “craving brain”

/ Routine
Cue / \
\ Reward
Marketers capture simple “trigger cues”
Goals and objectives

• **Goals**: broad, general intentions can be abstract and hard to measure

• **Objectives**: focused, concrete achievements can be tangible and measured.

• Persistent with our goals and
• flexible with our objectives in pursuit of our goals.
## SMARTER” OBJECTIVES

<table>
<thead>
<tr>
<th>Letter</th>
<th>Term</th>
<th>Other used terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Specific</td>
<td>Meaningful</td>
</tr>
<tr>
<td>M</td>
<td>Measurable</td>
<td>Appropriate, action-oriented</td>
</tr>
<tr>
<td>A</td>
<td>Achievable</td>
<td>Results-oriented</td>
</tr>
<tr>
<td>R</td>
<td>Relevant</td>
<td>Timely</td>
</tr>
<tr>
<td>T</td>
<td>Time-bound</td>
<td>Evaluated</td>
</tr>
<tr>
<td>E</td>
<td>Exciting</td>
<td>Recorded, reviewed</td>
</tr>
<tr>
<td>R</td>
<td>Recorded</td>
<td></td>
</tr>
</tbody>
</table>
An Example of a “SMART” Objective

- **Goal:** to develop a strategy for making a yarn for sweaters with improved properties.
- **Objective:** In 4 weeks, I will:
  - Review company documents development of the yarn.
  - Identify the assumptions/conclusions of previous researchers.
  - Publish my findings in a memo.
Assignment

• Develop specific objective(s) related to important goals for yourself

• Be ready to share them with your boss, with colleagues, with mentors, with me
Culture

• The attitudes, norms, and accepted values.

• The culture is seen in:
  – Technology
  – Economics
  – Personal Interactions
Norms and Values

- Some examples:
  - *Flexibility in hours of work*
  - *Work environment*
  - *Interaction style*
  - *Management policies*
  - *Socialization with co-workers on and off the job*
Discovering the Organization’s Culture

Examples of questions to ask:
- What’s important at work?
- What things are mandatory? Optional?
- What skills and characteristics are valued?
- How flexible is the length of a typical work day?
- What are the criteria used for promotion?
- How is professional development encouraged?
- How do I get feedback on my performance?
The National Labs – think team sports like football, rather than individual sports like tennis

- Managers are often former players
- You can become famous
- But your success ultimately depends on the team.
What’s it like to work there?

- Safety Culture.
  - safety training.
  - all accidents are preventable by good planning.

- Team-work.
  - Groups are large,
  - what you can do for the project
  - what you like to do!

Gwyn Williams, Jefferson Laboratories
The National Labs

- There is a promotion system similar to the universities, with levels of assistant (probationary, 2 years normally), associate, scientist, senior scientist.

- Some labs have tenure system, and in general there is a high level of security at least from year to year.

- In basic research you are judged by your productivity, which is measured by talks and published papers.

- There is an (at least) annual performance appraisal!!
How to accept Job Offer

SOURCE: A. Sklover
The Scenario

- Submitted Resume
- Conversed with hiring mgr. in screening interview 15 minutes longer than planned
- Flew into airport day before full day interviews, dinner, technical presentation
- Followed up with thank you notes after telephone screen and each on-site interviewee
- Offer of a position—salary, package, start date
- Negotiated for moving expenses and help finding spouse a position
Immediate Response

• Call and send letter of receipt
  – Thank you
  – Appreciation

• Confirm Offer details
  – Title, role and responsibilities, details of offer package
  – Clarification to avoid problems down the road
Evaluate the Offer

• Rewards
  – Relocation, memberships, benefits when do they kick in, your responsibilities

• Risks
  – Guarantee, if you lose position
  – Non-compete agreements, restrictions
  – Assurance of payments

• Responsibilities

• Compare with Resource information and comparable offers
Evaluate your family’s needs and develop your requests

• It is most helpful to seek Mentor
• What are your family’s near term and long term needs?
  Citizenship support      Short term housing
  Transportation            Health care
  Day care, adult care     Spousal employment
• Practice with a consultant
• Develop negotiation strategy

• Motivation: you will be a better employee
Close the deal

• Look for win-win options; Balance their needs with your needs
• Follow through in a timely manner
• Demonstrate you will be a terrific employee
• In writing, confirm all the details of the offer and negotiation. State acceptance. Express looking forward to day 1.
Plan for first Year

• How will you become more valuable to the enterprise?
• The more valuable you become, the more secure and lucrative an asset you are.
• Develop and update your self improvement plan.
• Initially start plan for your first review.
How do you find out about careers?

- Mentors and sponsors
- Information interviews
- Networking interviews; at Expos and Expositions
- Internships
- Volunteer
Other Wise Skills

- **Time management**
- Importance of disconnecting and recharging; develop and coordinate schedules
- Intentional Attention
- Be allies for others
- Intuition
• Audience Analysis http://blog.nesacs.org/?p=933
• NOW Habit  http://blog.nesacs.org/?p=922
• Smarter goals  http://blog.nesacs.org/?p=542
• Comt. Networking  http://blog.nesacs.org/?p=800
  http://blog.nesacs.org/?p=808
• Keystone habits  http://blog.nesacs.org/?p=844
  http://blog.nesacs.org/?p=783