

Job Talk

Prof. Patrick Hall

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Executive Summary:

Anything worth doing is hellish. -Richard Greenblatt's mom.

Not all hellish things are worth doing. -Shirley Hall's son.

Strike Info

- Contact CUPE 3903 and President Shoukri and request that they continue bargaining during the strike.
- Previous strikes lasted 54, 78 and 85 days. As scientists, we must acknowledge that the expectation value for the length of this strike is 72.3 ± 16.3 days (68% conf.).
- Once classes resume: the term will likely be shortened by one week; the final exam period shortened too; and summer sessions may also need to be shortened.
- The winter term will NOT be cancelled: your courses will be equivalent to other offerings of those courses.
- I do NOT suggest dropping courses due to the strike.

Career Pathways Project

- <http://www.spsnational.org/cup/careerpathways/>
- Their careers toolbox is an extremely useful resource.
- But don't neglect your passion, if you have one.
- Just put to use some of the skills you've learned as a physics major, and pursue your passion.
- Do all English Majors become Writers?
- Then why should all Physics Majors become Physicists?

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- <http://LaunchYU.ca/apply>

As a Physics major
you can do X ,
where X is
what you want to do.

That makes things challenging, but we like challenges.

As a Physics major you have more options than (say) Civil Engineering, and more room for growth, but also more challenges in searching for jobs. You can't just search for 'Physics', but once you get a job you can grow into it (and, anecdotally, be directing a group of engineers after 5 years.)

Tips

- <http://www.spsnational.org/cup/careerpathways/>
- Put all skills & experience on your CV, then cut back.
- Quantify your expertise.
- Networking: compose & practice an elevator speech.
- Conduct informational interviews.
- Brainstorm, assess, practice your skills.
- Write a different cover letter for every job.
- Apply for 40 jobs to get one ... I did!

Elevator Speech

- 30-second version of you, your accomplishments, and where you hope to go.
- Professional way to introduce yourself.
- Different for different audiences.
- Write a few, and practice them.
- **A short conversation with a purpose.**

Elevator Speech

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- Hi, I'm Patrick Hall, I'm an astronomer at York U. I study quasars and I've gotten interested in blind source separation of quasar spectra. I understand you've worked on BSS; can I ask you some questions about it?
- Hi, I'm Professor Patrick Hall. I'm the undergraduate program director in physics & astronomy at York U. Can you tell me if your company hires physics majors?

Elevator Speech

- Write one now!
- Then practice it out loud, rewriting a bit if necessary, just a few times.

Elevator Speech

- Seriously, write one now and practice it.

Elevator Speech

- I'm not kidding.

Actual graduate school recommendation forms!

Academic
skills and...

Ranked Evaluation

Evaluation

Use the following chart to rate the applicant in comparison with other students in the same field who have similar experience and training (assign 1 through 5, with 1 representing poor and 5 excellent; assign n/a if unable to rate)

Intellectual ability *	---- Please Select
Analytical ability *	---- Please Select
Oral communication skills *	---- Please Select
Written communication skills *	---- Please Select
Problem solving skills *	---- Please Select
Organizational skills *	---- Please Select
Knowledge of subject of proposed study *	---- Please Select
General education *	---- Please Select
Maturity *	---- Please Select
Motivation *	---- Please Select
Potential as a teacher *	---- Please Select
Potential in research *	---- Please Select
Acceptance of responsibility *	---- Please Select
Leadership capacity *	---- Please Select
Ability to get along with others *	---- Please Select

Rate the applicant in the following categories.

Knowledge and Creativity: Has a broad perspective on the field; is among the brightest persons I know; produces novel ideas; is intensely curious about the field.

Knowledge and Creativity

Communication Skills: Speaks in a clear, organized and logical manner; writes with precision and style; speaks in a way that is interesting; organizes writing well.

Communication Skills

Teamwork: Supports the efforts of others; behaves in an open and friendly manner; works well in group settings; gives criticism/feedback to others in a helpful way.

Teamwork

Resilience: Accepts feedback without getting defensive; works well under stress; can overcome challenges and setbacks; works extremely hard.

Resilience

Planning and Organization: Sets realistic goals; organizes work and time effectively; meets deadlines; makes plans and sticks to them.

Planning and Organization

Ethics and Integrity: Is among the most honest people I know; maintains high ethical standards; is worthy of trust from others; demonstrates sincerity.

Ethics and Integrity

Overall performance and capabilities

Overall

Your Skill Sets

- Analysis and quantitative thinking
- Communicating complex ideas
- Working in teams
- Problem solving and critical thinking
- Working with laboratory instruments
- Conducting research
- Proficiency with computer hardware & software

Quantify your expertise!

- 2 years' experience with oscilloscopes, voltmeters, ...
- Completed the following online computing courses (especially ones w/badges or certificates): see link.
- Rudimentary knowledge of Python. Used it to create .mov animation seen at <http://ara.phys.yorku.ca>
- Experienced with Keynote. Designed plaques seen at <http://solarsystem.blog.yorku.ca>.
- So experienced with Unix that one time I thought “There has to be a command that does what I want, and I bet it’s called...” and I was right. (It was “rev”.)

Put all skills etc. on your CV

- Weekly laboratory exercises in chemistry (2 terms).
- Biweekly laboratory physics (4 terms). 2nd-year lab reports about 10 pages long, with one partner. Gave verbal end-of-term presentation with lab partner.
- One semester of Matlab. Code samples available at ...
- Edited a Wikipedia page as a class assignment; see ...
- Part-time summer job conducting simple calculations of the performance of stocks on the Dow Jones.
- Co-recipient, “Most Likely to Succeed”, St. Joseph High School, Class of REDACTED.

Put all experiences on your CV...

- Education
- Jobs Held
- Courses Taken (highlighting some grades)
- Laboratory Experience
- Programming Experience
- Professional Memberships (RASC, ...)
- Club Memberships (PSYU, YUAC, RPGA, ...)
- Conferences & Workshops attended (CUPC, Women in STEM, ...)

...even if they didn't lead to concrete results.

- Worked with Prof. X on Y for Z weeks in Fall 2014.
- I first met Prof. McCall as a grad student. He was on sabbatical, we thought of a project, worked on it, and never published anything. But I put it on my resume when applying for my first postdoc. (And when I was looking for a faculty job, he knew me, which helped me to interview & become 2nd choice for this faculty job!)

Team up!

- Team Astro Grad School
- Team Education
- Team Industry
- Team Government
- Team Physics Grad School
- Team Med School
- Team Public Sector
- Team Law School
- Team ...

Activities

- Skills and experiences brainstorming... go!

You are now smarter
(or at least more
knowledgable)
than you were.

questions:

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