

2018 Physics Nobel Prize Tomorrow!

- Leading contenders:
 - Yakir Aharonov and Michael Berry, Geometric phases in Quantum Mechanics
 - John Clauser and Anton Zeilinger, Bell's Inequalities and Entanglement
 - Akihiro Kojima, Kenjiro Teshima, Yasuo Shirai and Tsutomu Miyasaka, Use of Perovskite and organometals in solar cells
 - Lene Hau, Slowing of light (to 50 km/h)
 - David Smith and John Pendry, Development of "metamaterials" (invisibility cloaks!)

Presenting Your Best Side!
Resumes, Cover Letters,
Personal Statements, and
Elevator Speeches

PHYS 480 – Fall 2018

Curriculum Vitae (CVs)

- A short (one to two page) summary of your skills and experience
 - Should include:
 1. Full name / address / email / website
 2. Education
 3. Work Experience
 4. Skills and Knowledge

Cover Letters

- **Opening paragraph**

- State for which job you're applying, and where you saw the ad. Describe your interest and enthusiasm for the job. If you have any particular connections to the company, you may want to mention them up front.
- Make it a captivating read!

- **Middle paragraph (or two)**

- Clearly connect your past to the job opening. Talk about how your past experiences gave you the necessary skills and knowledge for this particular job. Focus on what you can bring to the company, not what the job will do for you.

- **Closing paragraph**

- Thank the person you're writing for their time / attention.
- Reiterate your enthusiasm for joining the company.
- Express your eagerness to meet in person to discuss the opportunity.

Personal Statements

- An opportunity for you to present yourself to the graduate (medical) school application committee!
- Similar to the cover letter for job applications (so make the first paragraph count!)
- May be a deciding factor to a committee looking at a borderline acceptance.
- Should go beyond what has already been revealed in your application.
- Most important: it should portray your *uniqueness* through highlighting and reflecting on your most pertinent experiences.

Personal Statements

- Research the institution to understand the culture and vision.
- Research the department to know their research strengths and their faculty's areas of expertise.
- For thesis-based programs, include information about possible professors you would like as supervisors.
- Explore their website and, if possible, visit the campus in person.
- Talk to the admissions officers and other professionals directly either at their office or attend education fairs and information sessions offered by the Career Centre in the fall.

Personal Statements

Example questions:

- *Provide a brief statement of your scientific and professional interests and objectives. Include a description of your past accomplishments that are not evident from the examination of the other documents submitted. Report, if applicable, on any research in progress.*
- *In an essay, please describe your aptitude and motivation for graduate study in your area of specialization, including your preparation for this field of study, your academic plans or research interests and experience in your chosen area of study, and your future career goals. Please be specific about why X University would be a good intellectual fit for you.*

Application Essays

- Some institutions may ask for an essay on no specific topic, but with a science / physics theme (usually for undergraduate, but elements can be integrated into a personal statement)
- Designed to explore your understanding of the discipline and your creativity / innovative attitude
- From Caltech:
- Describe three experiences and/or activities that have helped develop your passion for a possible career in a STEM field. (Your response for each experience/activity should range between 10-120 words.)
- Much like the life of a professional scientist or engineer, the life of a "Techer" relies heavily on collaboration. Knowing this, what do you hope to explore, innovate, or create with your Caltech peers? (Your response should range between 250-400 words.)
- Caltech students are often known for their sense of humor and creative pranks. What do you like to do for fun? (Your response should range between 250-400 words.)

Networking!

- Get your name out there! It can make the difference in borderline cases.
- Research the department or company to know their focuses (research and development).
- Contact professors whom you might like to work with and express your interest.
- For companies: network at events or link up with alumni.
- Explore their website and, if possible, visit the campus in person (if possible).

Looking Forward...

- 08 Oct: Elevator speech due
- 15 Oct: Cover letter due
- 22 Oct: Personal statement due; Presentation preparation tips
- 29 and 31 Oct: 10-15 minute presentations
- 12 Nov: First draft: Chapter 1 of thesis!