

Ace your physics career!

AIP's Career Pathways Project

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“RO”

SPS Summer Intern 2013

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Cuernavaca, MEX

Cuernavaca, MEX



Cuernavaca, MEX

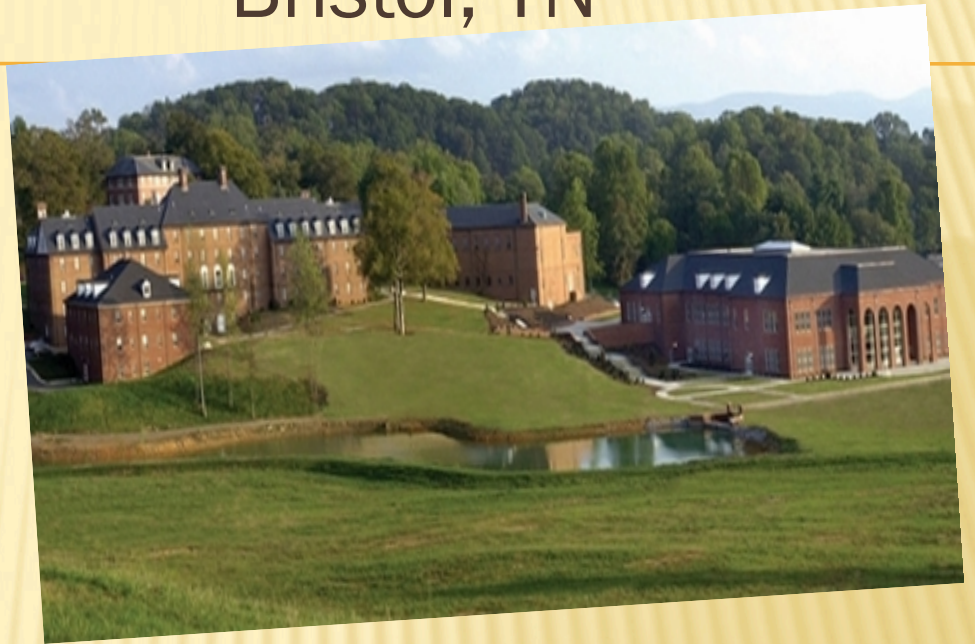


Bristol, TN

Cuernavaca, MEX



Bristol, TN

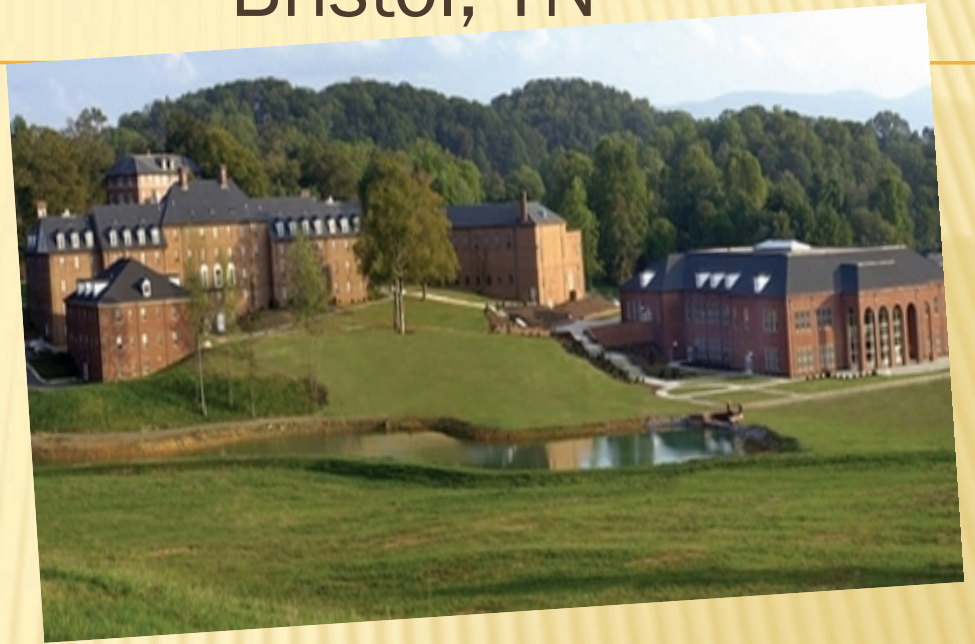


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Washington, D.C.

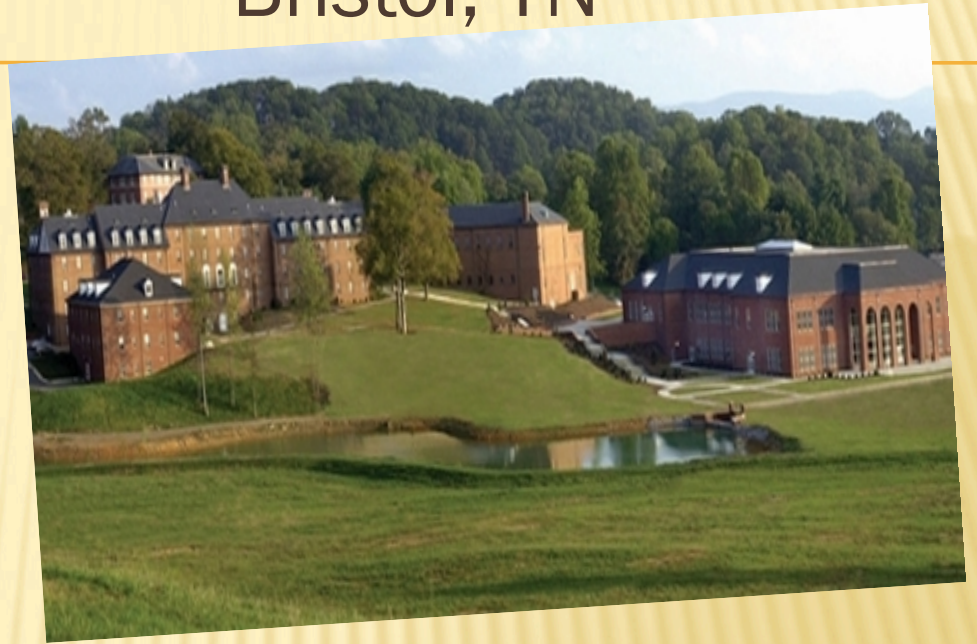
Bristol, TN



Cuernavaca, MEX



Bristol, TN



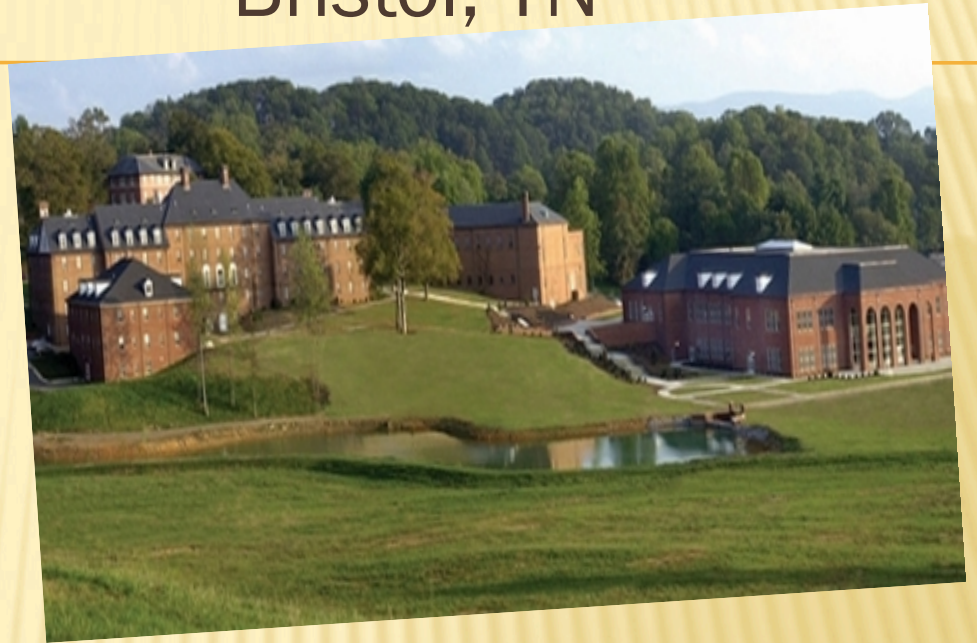
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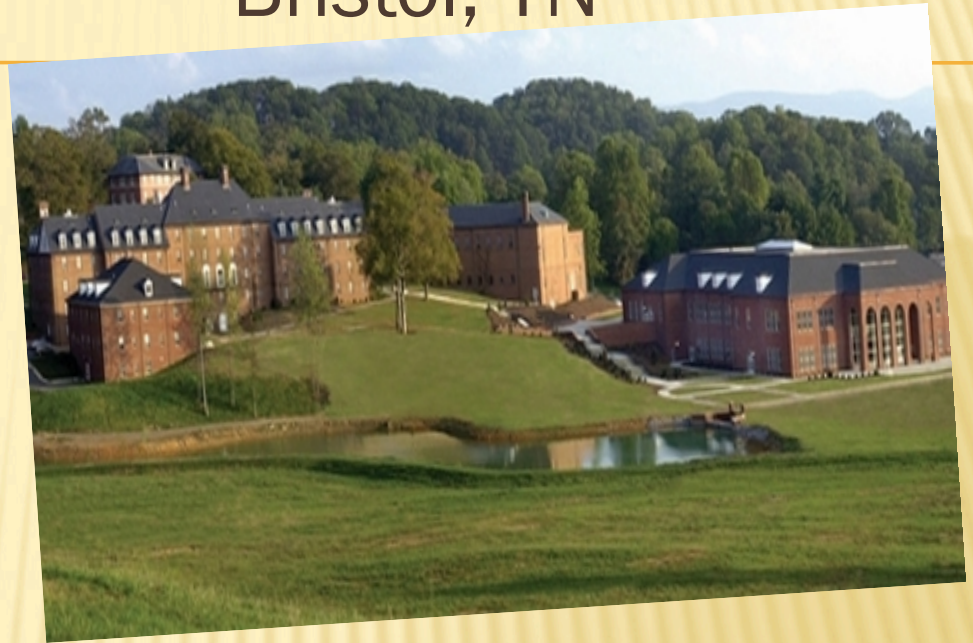


Europe?

Cuernavaca, MEX



Bristol, TN



Washington, D.C.



Europe?



Need for more undergraduates in STEM workforce...

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Career Pathways Project

Need for more undergraduates in STEM workforce...



Career Pathways Project

Funded by the **NSF**



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Statistics Research Center



AIP's Education Division (SPS)

Need for more undergraduates in STEM workforce...



Career Pathways Project

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Statistics Research Center



AIP's Education Division (SPS)

✦ Encourage



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Statistics Research Center



AIP's Education Division (SPS)

✦ Encourage

✦ Show



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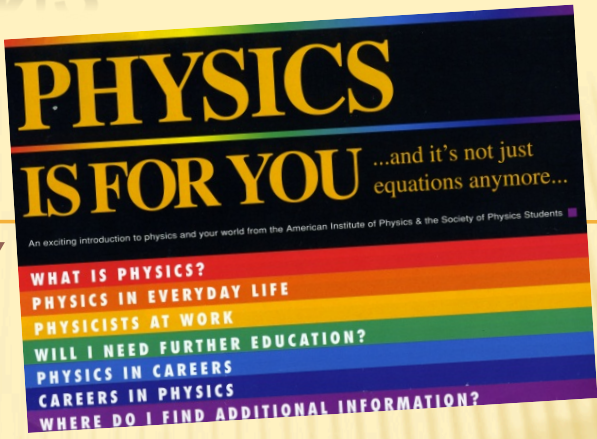
✦ Show

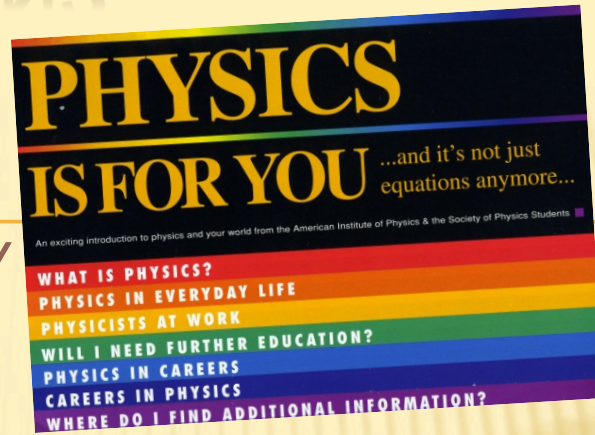
✦ Equip



-
- ✘ Famous brochure aka PIFY

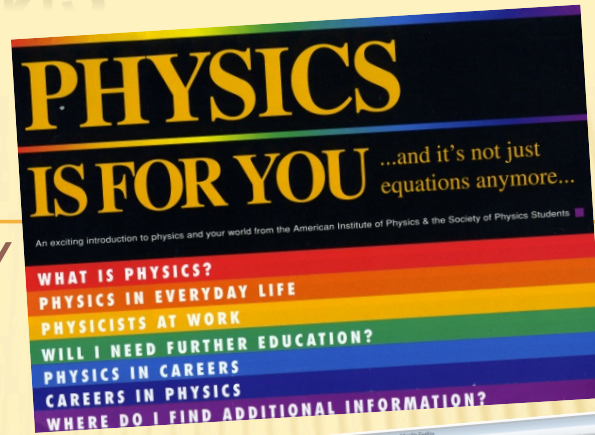
✘ Famous brochure aka PIFY





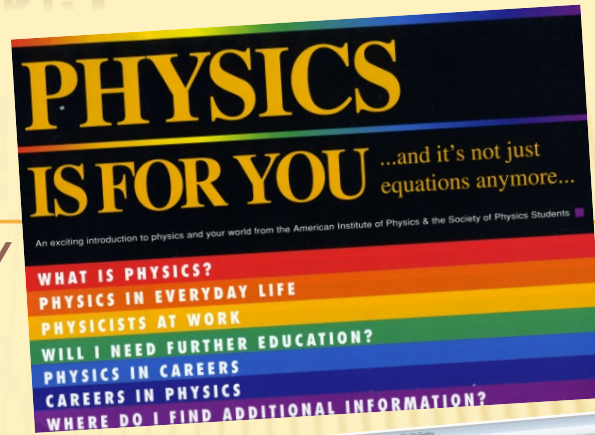
✘ Famous brochure aka PIFY

✘ Careers Using Physics website



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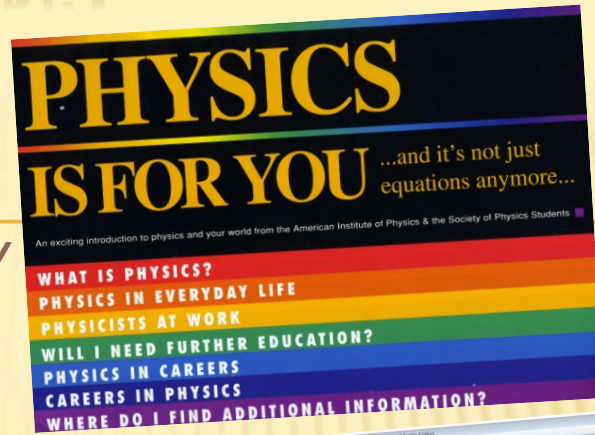
✘ Careers Using Physics website



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✘ Advice from Alumni to Physics Majors

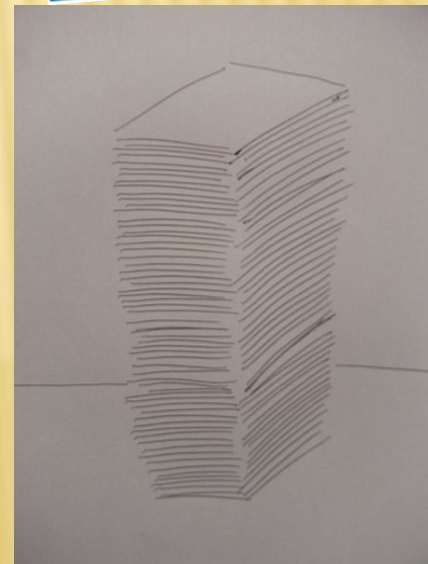
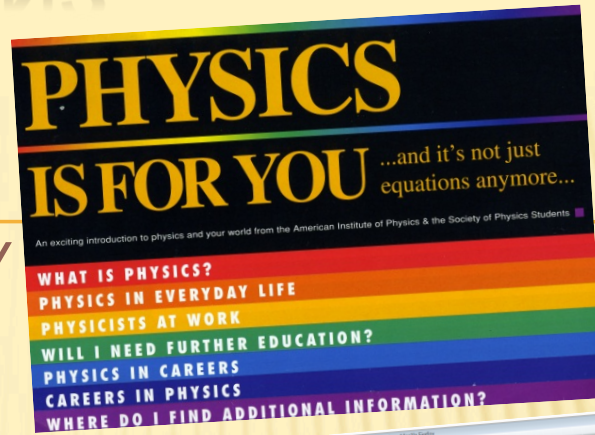


✘ Famous brochure aka PIFY

✘ Careers Using Physics website

✘ Advice from Alumni to Physics Majors

✘ 11 career-related resources



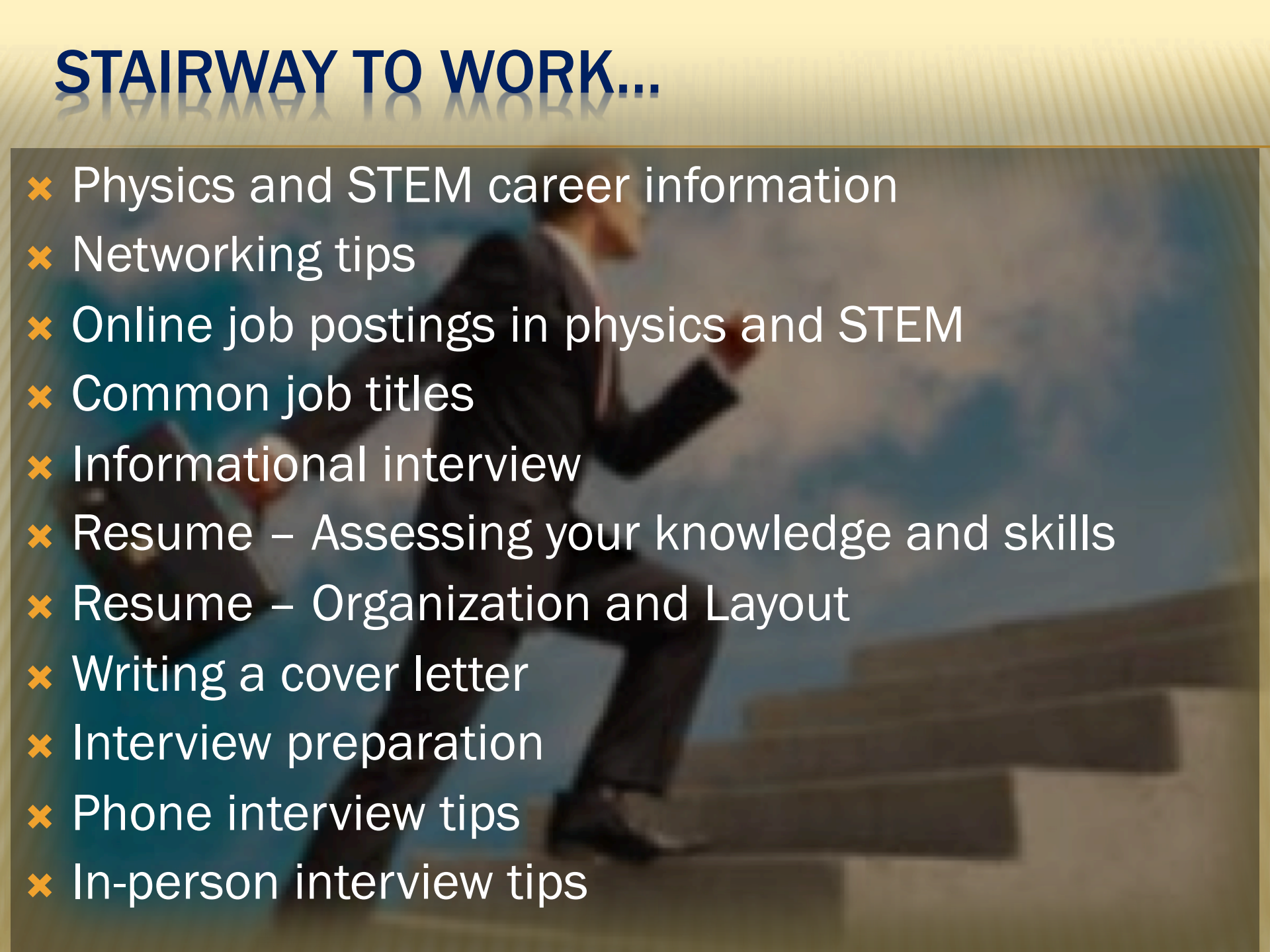
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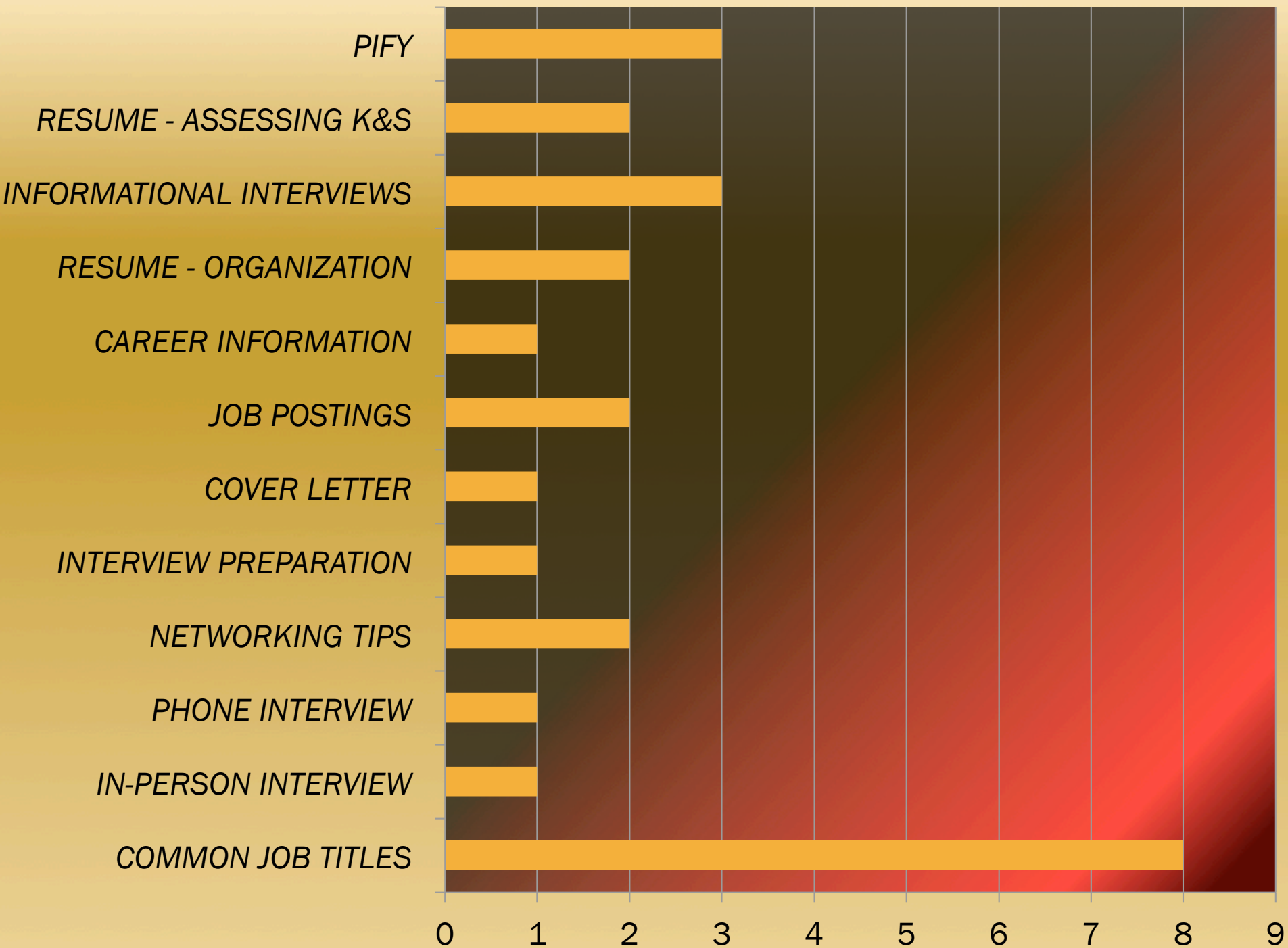
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STAIRWAY TO WORK...

- ✘ Physics and STEM career information
 - ✘ Networking tips
 - ✘ Online job postings in physics and STEM
 - ✘ Common job titles
 - ✘ Informational interview
 - ✘ Resume – Assessing your knowledge and skills
 - ✘ Resume – Organization and Layout
 - ✘ Writing a cover letter
 - ✘ Interview preparation
 - ✘ Phone interview tips
 - ✘ In-person interview tips
- 



COMMON JOB TITLES

- ✘ Initial Employment for Physics Bachelors

COMMON JOB TITLES

- ✘ Initial Employment for Physics Bachelors

- Guide, not rules

COMMON JOB TITLES

✘ Initial Employment for Physics Bachelors

❑ Guide, not rules

❑ 4 sections

The image displays four overlapping screenshots of Microsoft Word documents, each showing a different job title and its description. The documents are arranged in a collage:

- ENGINEERING**
 - Systems Engineers**
Design or manage engineering projects often in software or computer systems. They focus on the client's needs during the system building process, from definition to design and implementation. System engineers identify problems presented in the project that may cause a possible delay in budget, and then find appropriate solutions.
 - Electrical Engineers**
Combine science and technology to design or maintain components of electrical systems. They are responsible for dealing with the technical aspects of electricity, often the design and testing of electrical systems for power generation and distribution.
 - Design Engineers**
Design and develop new products and systems using their technical knowledge. They often work in a laboratory or office setting.
- COMPUTER HARDWARE AND SOFTWARE**
 - Software Engineers**
Responsible for providing software project development support including the generation of software specifications, analysis of software systems, coding of software modules, interfacing and coding of communication/network subsystems, and operating programs.
- RESEARCH AND TECHNICAL**
 - Research Assistants**
Responsible for assisting with routine duties in a laboratory or office setting. They may be involved in data collection, sample preparation, and equipment maintenance. They often work under the supervision of a scientist or researcher.
 - Research Associates**
Responsible for performing research and development work, often in a laboratory or office setting. They may be involved in data collection, sample preparation, and equipment maintenance. They often work under the supervision of a scientist or researcher.
- EDUCATION**
 - High School Physics Teachers**
About half of high school physics teachers teach physics exclusively or mostly. About half teach one or two classes of physics while the majority of their teaching load is chemistry, math, and other related classes. A state-issued license is required for an educator at a public school, and each state and D.C. has its own licensing requirements; however, most private schools do not demand the licensing requirements of public schools.
 - Middle School Science Teachers**
Middle school science teachers often cover general science classes which could include physics, chemistry, biology, and earth science. A state-issued license is required for an educator at a public school, and each state and D.C. has its own licensing requirements.

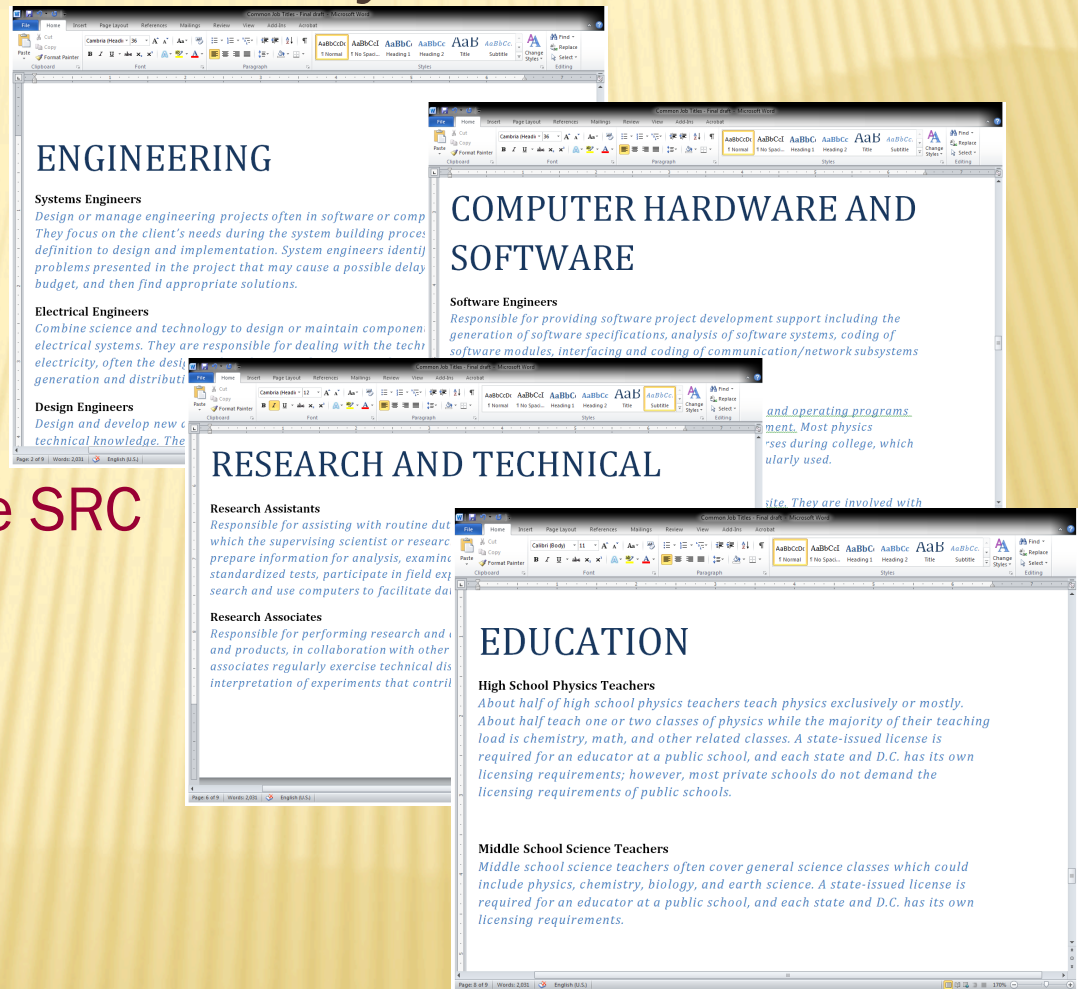
COMMON JOB TITLES

✘ Initial Employment for Physics Bachelors

❑ Guide, not rules

❑ 4 sections

❑ Obtained from the SRC



COMMON JOB TITLES

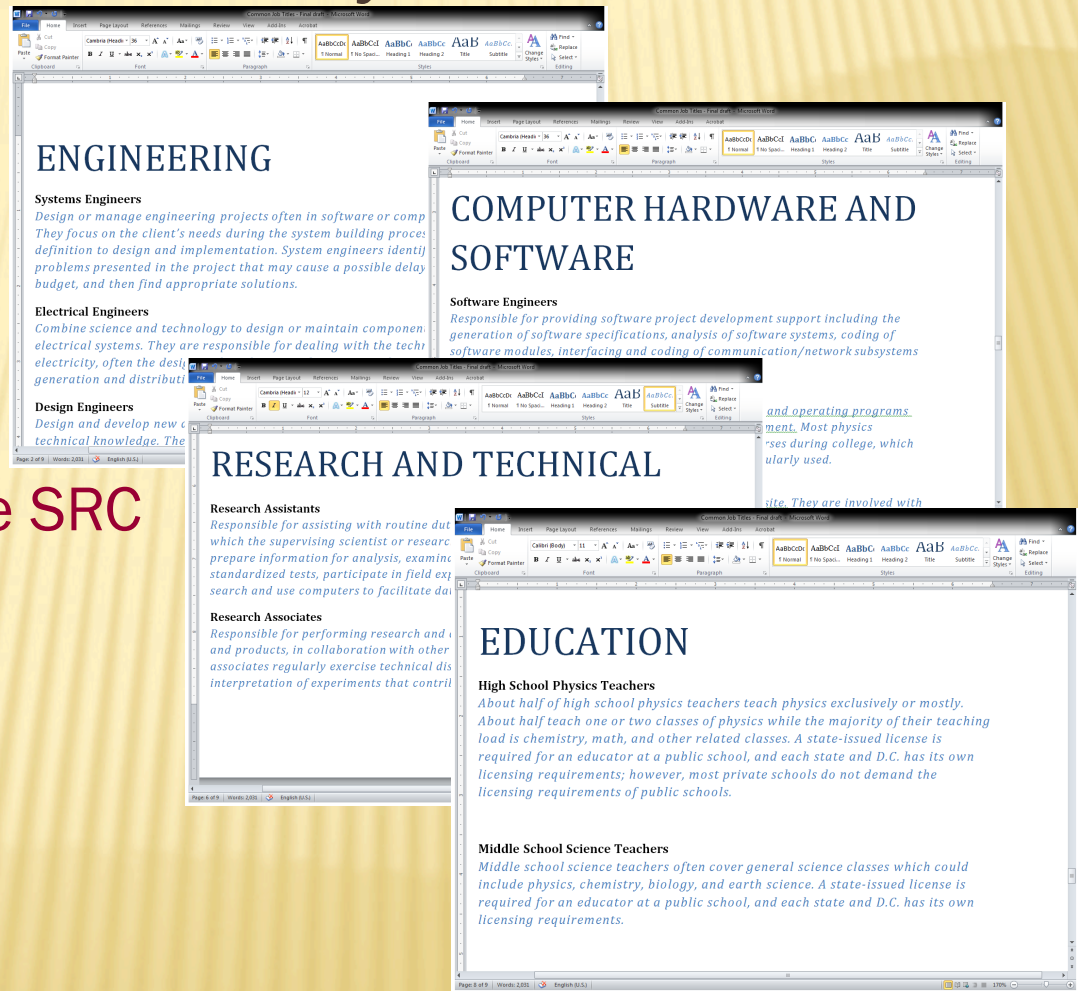
✘ Initial Employment for Physics Bachelors

❑ Guide, not rules

❑ 4 sections

❑ Obtained from the SRC

❑ Unique



NETWORKING TIPS

Having great credentials is helpful when job searching, but networking can give you the personal connection you need in order to get an interview, hear more about an opportunity you originally overlooked, or hearing about an opening that is not widely advertised. The people you meet today can be the link to your future career.

1. Network everywhere

Whether you are at a STEM fair, physics meeting, department colloquium, or science outreach event, always look for new people to meet. Every event is a potential networking event. You never know when or where you are going to encounter your next boss. Do not be afraid to tell people that you are looking for a job, most people are eager to help students if they can.

2. Consider helping others

Networking is about connecting with people—not just furthering your career. When you meet someone, think about what you can offer them. Do you know someone that does complimentary research who your new connection might like to meet? If your new connection is the only one from his or her institution at a meeting, might he or she like to join your group for dinner? This approach makes networking much less intimidating and can help you form meaningful and lasting connections.

3. Attend physics meetings

Go to SPS zone meetings and meetings of professional societies like the American Physical Society or the American Astronomical Society whenever you have a chance.

<http://www.spsnational.org/cup/>

INFORMATIONAL INTERVIEWS



- ✘ What is it?
- ✘ How did I get one?
 - ✘ Social network
 - ✘ Contact person
 - ✘ Informational interview
 - ✘ Thank-you email



I LEARNED...

- ✘ Wisely how my words to pick
- ✘ If you're using 10 words, and you can say it with 4, then do so
- ✘ Career preparation

WE DID PHYSICS...



WE DID OUTREACH...



WE TOOK TOURS...



AND WE FOUND HOME...



WE WERE CURIOUS...



07/26/2013

AND WE STRUGGLED...



BUT WE SUPPORTED EACH OTHER...



AND EVEN THOUGH THERE WERE WALLS...



WE LEARNED HOW TO DANCE...



OR NOT...?



ANYWAYS...

SPECIAL THANKS TO...

- × NSF Project No. 1011829
- × Amanda McMath – for her patience...
- × Crystal Bailey – for her wise advice...
- × Shouvik Battacharya & Amanda Palchak – for creating the roots for these documents...
- × Lydia – for giving me the first SPS “good morning” of the day...
- × Sacha – for making sure we got to work every day...
- × Daniel – for sharing his experiences, thoughts, and why not...
- × Elizabeth – for reading our journals, for helping me with the images, grammar....
- × Tracy – for his creative help and networking ideas...
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- × Chloe and Amy – for organizing our mess...
- × Emily – for her positivism to our work...
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- × Casey Tesfaye – for her collaboration with projects...
- × Ben Stein – for his connections...
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- × Kendra – for her great ideas, view points, assistance...
- × Toni – for being our summer’s “mom”, and a great “jefa”...
- × Roman – for teaching me not about anything, but about everything...
- × All the SPS interns – for an incredible summer...



Thanks!

