Effective Practices for Physics Programs

Physics Department Chairs Online Conference
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Effective Practices for Physics Programs (EP3) Breakout Session #3

Career Preparation

Contributors

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Session Presenters

Kathryn Svinarich (Kettering University) & Larry Woolf (General Atomics Aeronautical Systems, Inc.)

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Effective Practices for Physics Programs

EP3 Breakout Session #3
Career Preparation

For this session:

- What is this section about?
- Where is it at in the development process?
- Some tips on how to read and use the section.
- Take some time to look at this content.
- Q&A

Please type your questions, feedback, and information in the Google Doc. **The link can be found in the agenda**.

We will compile your feedback to populate our FAQ, providing a summary of the EP3 sessions to participants through our mailing list.

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Effective Practices for Physics Programs

Career Preparation

Contributors:

- Crystal Bailey (American Physical Society)
- Laurie McNeil (University of North Carolina at Chapel Hill)
- Toni Sauncy (Texas Lutheran University)
- Kathryn Svinarich (Kettering University)
- Larry Woolf (General Atomics Aeronautical Systems, Inc.)

Description:

Provides guidelines and recommendations for physics programs to prepare and support graduates for a wide variety of careers through curricular and co-curricular activities. Explores how physics programs can provide experiences that intentionally connect physics with applications and students with opportunities that align with their career goals.

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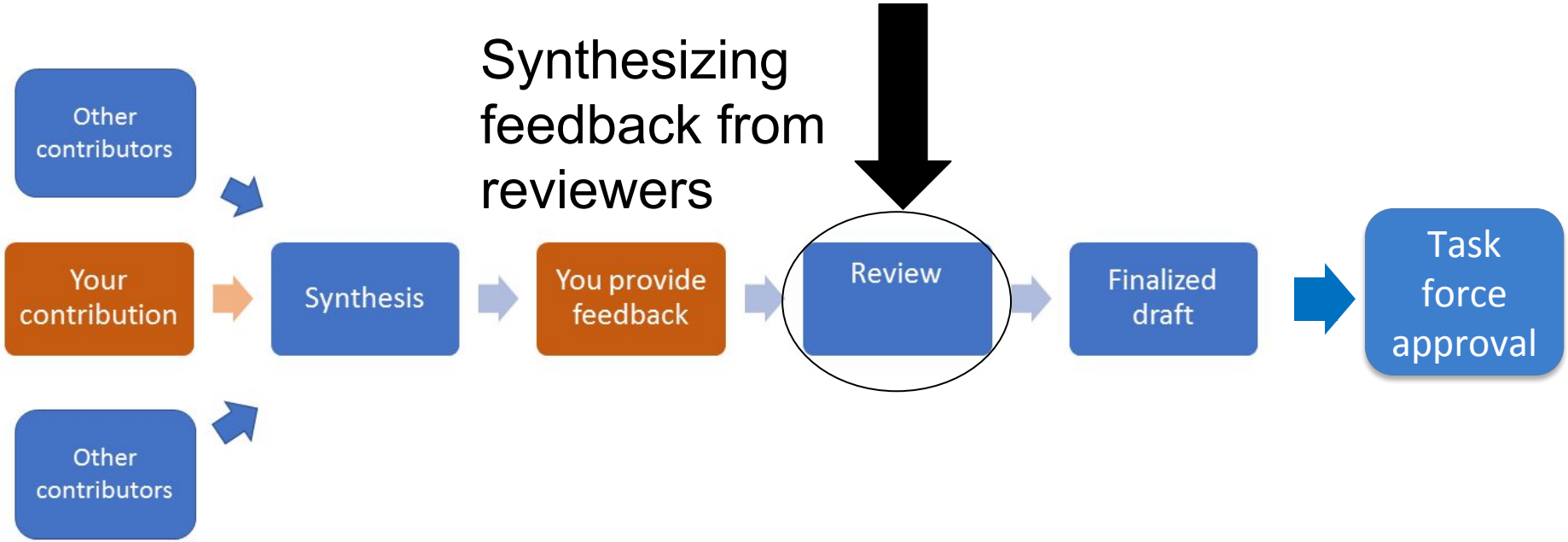
Career Preparation

Where is it at in our process?



For each section there will be several individuals (including yourself) contributing content

The task force and editorial director will then synthesize into one cohesive document.

We may have some additional questions for you. After internal vetting you will have a chance to see and comment on the synthesized section.

Each section will be sent for expert review to at least 4 individuals.

To see an example of a final section the Teacher Preparation can be found here: http://apps3.aps.org/bpupp/

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Effective Practices for Physics Programs

What will a section look like?

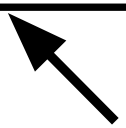
Description

Provides guidelines and recommendations for physics programs to prepare and support graduates for a wide variety of careers through curricular and co-curricular activities. Explores how physics programs can provide experiences that intentionally connect physics with applications and students with opportunities that align with their career goals.

Benefits

Physics bachelor's degree recipients pursue diverse careers, within and outside academia, yet many physics programs still narrowly focus on preparing their undergraduates for academic careers. Preparing students for diverse careers makes graduates more employable, better prepared for further education, and aids in recruitment and retention. Improved graduate employment is a positive outcome for universities for both recruitment and accreditation.

Effective practices



Always present

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Sections have *Themes* and *Actionable Practices*

Theme (3 in this section)

- ***Provide students with on-campus experiences that explicitly teach skills and knowledge relevant to future careers***
  - Develop learning goals for skills and knowledge that are aligned with your department's mission and relevant to future careers
  - Provide flexible degree plan options for students that align with their career goals
  - Review and modify the physics curriculum to align with career preparation program learning goals
  - Provide guidance and resources to students to support them in choosing careers that fit their interests

Actionable Practice (up to ≈ 6 in a theme)

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Actionable Practices come with some "how-to's"

Actionable Practice (up to ≈ 6 in a theme)

- Provide guidance and resources to students to support them in choosing careers that fit their interests
  - *Educate students about a wide variety of career paths, both in and out of academia (e.g., technical and non-technical careers, business, management, entrepreneurs, teachers, policy makers).*
  - *Talk to students about the advantages and disadvantages of various careers, and help them find the path that is the best fit for them.*
  - *Discuss with students how their physics skills and knowledge are transferable to other disciplines, such as engineering, and work with students on how to present this to potential employers (e.g., on resumes, in interviews).*

Implementation Strategies (up to ≈ 6 in an actionable practice)

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Effective Practices for Physics Programs

Tips on reading sections and chapters

Please remember that the EP3 Guide

- Is **NOT** a checklist of required actions.
- It IS a list of possible actions departments may consider if appropriate and applicable to their local situation.
- Chapters and sections are written and reviewed by individuals from a range of institution-types (to have something for each type of institution to consider).
- This is **NOT** every possible idea for what to do (e.g., the 'kitchen sink').
- This does **NOT** contain the smallest level of detail outlining the specifics of implementing an idea.
- There will be opportunities to discuss specifics applicable to your local context that may include: EP3 workshops, Departmental Action Leadership Institutes (DALI, year-long commitment), and online forum (immediate feedback).

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Career Preparation and Q&A

You can find the draft section here:

Read/peruse the content prior to our discussion. Please be sure to include your questions in the Google Doc (link is listed in your agenda).

For the 3:25 Breakout session only, please consider providing feedback on your first impression of the document (including the layout/formatting of the section). This information will go to the Program Evaluator and will help refine what we have.

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Effective Practices for Physics Programs

Contact? ep3guide.org

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