In Workflow
1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)
2. 1580 Head (amyelli@illinois.edu)
3. KP Committee Chair (mch@illinois.edu; bsnewell@illinois.edu; danko@illinois.edu; kcp@illinois.edu)
4. KP Dean (candyd@illinois.edu)
5. KV Dean (las-catalog@illinois.edu)
6. University Librarian (jpwilkin@illinois.edu)
7. COTE Programs (nilatha@illinois.edu; bmclvngr@illinois.edu)
8. Provost (ritterk)
9. Senate EPC (bjlehman@illinois.edu; moorhouz@illinois.edu; kmartens@illinois.edu)
10. Senate (jtempel@illinois.edu)
11. U Senate Conf (none)
12. Board of Trustees (none)
13. IBHE (none)
14. DMI (eastuby@illinois.edu; aledward@illinois.edu; dforgacs@illinois.edu)

Approval Path
1. Wed, 02 Dec 2020 15:58:37 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review
2. Wed, 02 Dec 2020 16:48:18 GMT
   Amy Elli (amyelli): Approved for 1580 Head
3. Wed, 02 Dec 2020 21:53:54 GMT
   Brooke Newell (bsnewell): Approved for KP Committee Chair
   Candy Deaville (candyd): Approved for KP Dean
5. Wed, 02 Dec 2020 22:56:51 GMT
   Kelly Ritter (ritterk): Approved for KV Dean
   John Wilkin (jpwilkin): Approved for University Librarian
7. Thu, 03 Dec 2020 17:42:07 GMT
   Brenda Clevenger (bmclvngr): Approved for COTE Programs
8. Thu, 03 Dec 2020 17:47:41 GMT
   Kathy Martensen (kmartens): Approved for Provost

History
1. Jan 16, 2019 by Deb Forgacs (dforgacs)
2. Jan 25, 2019 by Deb Forgacs (dforgacs)
3. Mar 28, 2019 by Deb Forgacs (dforgacs)

Deactivation Proposal
Date Submitted: Wed, 02 Dec 2020 15:37:55 GMT

Viewing: 10KV3919BSLA : Physics: Physics Teaching, BSLAS
Changes proposed by: Kelly Ritter

Proposal Type

Proposal Type:
Concentration (ex. Dietetics)
This proposal is for a:

Phase Down/Elimination

Proposal Title:

If this proposal is one piece of a multi-element change please include the other impacted programs here. example: A BS revision with multiple concentration revisions

Phase down all three LAS Physics programs (BSLAS, BS Specialized Curriculum, and BSLAS Physics, Teaching Concentration) effective Fall 2022, with the intent to consolidate all Physics instruction in The Grainger College of Engineering.

(Related proposals: Keys 117, 548, 548, 550)

EP Control Number

EP:21.044

Official Program Name

Physics: Physics Teaching, BSLAS

Effective Catalog Term

Fall 2022

Sponsor College

Liberal Arts & Sciences

Sponsor Department

LAS Administration

Sponsor Name

Kelly Ritter

Sponsor Email

ritterk@illinois.edu

College Contact

Kelly Ritter

College Contact Email

ritterk@illinois.edu
Program Description and Justification

Justification for proposal change:

The three nearly identical Physics undergraduate degree programs in the College of Liberal Arts and Sciences ("BSLAS in Physics, Sciences and Letters", "BS in Physics, LAS Specialized Curriculum", and "BS in Physics, Teaching Concentration") at the University of Illinois will be consolidated with the existing "Engineering Physics" degree program in The Grainger College of Engineering (GCOE) to form a single "Physics" BS degree program to be offered by the Department of Physics. The BSLAS in Physics, Sciences and Letters and the BS in Physics, LAS Specialized Curriculum, are essentially the same as the Engineering Physics degree, while the BS in Physics, Teaching Concentration has recently had extremely low enrollment (currently, two) and the option of pursuing the Engineering Physics BS degree with a Secondary Education minor already exists. This consolidation plan will reduce student and parent confusion, provide better student support and cohesion, improve the student experience, and streamline operations for the Department of Physics. This phase-down is a cooperative administrative effort between the College of LAS and The Grainger College of Engineering.

Is this program interdisciplinary?

No

Corresponding Program(s):

<table>
<thead>
<tr>
<th>Corresponding Program(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics, BSLAS</td>
</tr>
</tbody>
</table>

Academic Level

Undergraduate

Is This a Teacher Certification Program?

Yes

Will specialized accreditation be sought for this program?

No

Enrollment

Describe how this revision will impact enrollment and degrees awarded.

Students already enrolled in the three LAS Physics degree programs during the phase down will be allowed to transfer to Engineering Physics. An agreement with the GCOE is already in place to allow these students to transfer at any time without additional requirements and bypass the Pre-Engineering Program. Teaching out the LAS degrees for students who wish to remain in those programs is straightforward, since the curriculum involves the same classes that are taught for the Engineering Physics degree. Furthermore, capacity is already in place to accommodate these students.

What is the typical time to completion of this program?

4-5
What are the minimum Total Credit Hours required for this program?

97-103

**Delivery Method**

Is this program available on campus and online?

No

This program is available:

On Campus

**Budget**

Are there budgetary implications for this revision?

No

Will the program or revision require staffing (faculty, advisors, etc.) beyond what is currently available?

No

**Resource Implications**

**Facilities**

Will the program require new or additional facilities or significant improvements to already existing facilities?

No

**Technology**

Will the program need additional technology beyond what is currently available for the unit?

No

**Non-Technical Resources**

Will the program require additional supplies, services or equipment (non-technical)?

No
Resources

For each of these items, be sure to include in the response if the proposed new program or change will result in replacement of another program(s). If so, which program(s), what is the anticipated impact on faculty, students, and instructional resources? Please attach any letters of support/acknowledgement from faculty, students, and/or other impacted units as appropriate.

Attach File(s)

Physics Academic Plan 2020 12-2-20.docx

Faculty Resources

Please address the impact on faculty resources including any changes in numbers of faculty, class size, teaching loads, student-faculty ratios, etc. Describe how the unit will support student advising, including job placement and/or admission to advanced studies.

There will be no impact on faculty resources, loads, or class sizes, or advising, since all of these already are located in Physics, in Grainger College of Engineering. GCOE already is responsible for all courses and staffing, and advising of students taking LAS Physics degrees.

Library Resources

Describe your proposal's impact on the University Library's resources, collections, and services. If necessary please consult with the appropriate disciplinary specialist within the University Library.

N/A

Instructional Resources

Will there be any reduction in other course offerings, programs or concentrations by your department as a result of this new program/proposed change?

Yes

Please describe

Once admissions to the LAS Physics programs is eliminated, students will lose the opportunity to pursue double majors: the GCOE only permits dual degrees. This change will impact a limited number of students. Approximately 3% of LAS Physics students pursue a double major; the most popular options are double majors in Physics and Astronomy or Math. Of those students, we estimate that fewer than five per graduating class would not have sufficient transfer or AP credit at matriculation to complete a dual degree in four years. The Astronomy department is considering launching an Astrophysics degree program to accommodate students interested a combination of physics and astronomy, but who do not want to pursue a dual degree. The Teaching of Physics degree is not directly affected in this manner, however, since its students typically cannot double major in another area, due to total hours required.

Does the program include other courses/subjects impacted by the creation/revision of this program?

No
Financial Resources

Will the unit need to seek campus or other external resources?
No

Program Regulation and Assessment

Briefly describe the plan to assess and improve student learning, including the program’s learning objectives; when, how, and where these learning objectives will be assessed; what metrics will be used to signify student’s achievement of the stated learning objectives; and the process to ensure assessment results are used to improve student learning. (Describe how the program is aligned with or meets licensure, certification, and/or entitlement requirements, if applicable).

N/A

Is the career/profession for graduates of this program regulated by the State of Illinois?
Yes

If yes, please describe.
Teacher certification program.

Program of Study

"Baccalaureate degree requires at least 120 semester credit hours or 180 quarter credit hours and at least 40 semester credit hours (60 quarter credit hours) in upper division courses" (source: https://www.ibhe.org/assets/files/PrivateAdminRules2017.pdf). For proposals for new bachelor’s degrees, if this minimum is not explicitly met by specifically-required 300- and/or 400-level courses, please provide information on how the upper-division hours requirement will be satisfied.

All proposals must attach the new or revised version of the Academic Catalog program of study entry. Contact your college office if you have questions.

Attach a side-by-side comparison with the existing program AND, if the revision references or adds “chose-from” lists of courses students can select from to fulfill requirements, a listing of these courses, including the course rubric, number, title, and number of credit hours.

Catalog Page Text

Catalog Page Text: Description of program for the catalog page. This is not official content, it is used to help build the catalog pages for the program. Can be edited in the catalog by the college or department.

Program no longer accepting students effective Fall 2022.

Statement for Programs of Study Catalog
General education: Students must complete the Campus General Education (https://courses.illinois.edu/) requirements including the campus general education language requirement.

Minimum required major and supporting coursework: Minimum required major and supporting coursework normally equates to 65-73 hours. Twelve hours of 300- and 400-level courses in the major must be taken on this campus.

Teacher Education requirements: Students in this concentration must complete the Teacher Education Minor in Secondary School Teaching. See the College of Education section for requirements of the minor (http://catalog.illinois.edu/undergraduate/education/secondary/) (39 hours).

GPA requirements: To remain in good standing in this program and be recommended for certification, candidates are required to maintain UIUC, cumulative, content area, and professional education, grade-point averages of 2.5 (A=4.0). Candidates should consult their advisor or the Council on Teacher Education for the list of courses used to compute these grade-point averages. http://www.cote.illinois.edu/

Minimum hours required for graduation: 120 hours.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 221</td>
<td>Calculus I</td>
</tr>
<tr>
<td>or MATH 220</td>
<td>Calculus</td>
</tr>
<tr>
<td>MATH 231</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MATH 241</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MATH 285</td>
<td>Intro Differential Equations</td>
</tr>
<tr>
<td>or MATH 286</td>
<td>Intro to Differential Eq Plus</td>
</tr>
<tr>
<td>PHYS 211</td>
<td>University Physics: Mechanics</td>
</tr>
<tr>
<td>PHYS 212</td>
<td>University Physics: Elec &amp; Mag</td>
</tr>
<tr>
<td>PHYS 213</td>
<td>Univ Physics: Thermal Physics</td>
</tr>
<tr>
<td>PHYS 214</td>
<td>Univ Physics: Quantum Physics</td>
</tr>
</tbody>
</table>

Select one group of Chemistry courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 102 &amp; CHEM 103</td>
<td>General Chemistry I and General Chemistry Lab I</td>
</tr>
<tr>
<td>or CHEM 202 &amp; CHEM 203</td>
<td>Accelerated Chemistry I and Accelerated Chemistry Lab I</td>
</tr>
</tbody>
</table>

Additional required coursework

Teacher Education Minor in Secondary School Teaching (http://catalog.illinois.edu/undergraduate/education/secondary/) 39

Physics Core

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 110</td>
<td>Physics Careers</td>
</tr>
<tr>
<td>PHYS 325</td>
<td>Classical Mechanics I</td>
</tr>
<tr>
<td>PHYS 435</td>
<td>Electromagnetic Fields I</td>
</tr>
<tr>
<td>PHYS 485</td>
<td>Atomic Phys &amp; Quantum Theory</td>
</tr>
<tr>
<td>or PHYS 486</td>
<td>Quantum Physics I</td>
</tr>
</tbody>
</table>

Choose at least three courses from List A and List B below. At least one course must come from List B. 9-14

A

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 326</td>
<td>Classical Mechanics II</td>
</tr>
<tr>
<td>PHYS 436</td>
<td>Electromagnetic Fields II</td>
</tr>
<tr>
<td>PHYS 427</td>
<td>Thermal &amp; Statistical Physics</td>
</tr>
<tr>
<td>PHYS 470</td>
<td>Subatomic Physics</td>
</tr>
<tr>
<td>PHYS 487</td>
<td>Quantum Physics II</td>
</tr>
<tr>
<td>PHYS 460</td>
<td>Condensed Matter Physics</td>
</tr>
<tr>
<td>PHYS 475</td>
<td>Introduction to Biophysics</td>
</tr>
</tbody>
</table>

B

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 401</td>
<td>Classical Physics Lab</td>
</tr>
<tr>
<td>PHYS 403</td>
<td>Modern Experimental Physics</td>
</tr>
<tr>
<td>PHYS 404</td>
<td>Electronic Circuits</td>
</tr>
<tr>
<td>PHYS 406</td>
<td>Acoustical Physics of Music</td>
</tr>
</tbody>
</table>
**Additional Technical Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IB 100</td>
<td>Biology in Today’s World</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 107</td>
<td>Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>ASTR 210</td>
<td>Introduction to Astrophysics</td>
<td>3</td>
</tr>
</tbody>
</table>

1. MATH 220 may be substituted with four of the five credit hours applying toward the degree. MATH 220 is appropriate for students with no background in calculus.

**EP Documentation**

Attach Rollback/Approval Notices

Re_ EP21044 - Physics, Teaching Concentration.pdf
Correspondence with sponsor ep21042434445.pdf

**DMI Documentation**

Banner/Codebook Name

BSLAS:Physics:Teaching Op-UlUC

Program Code:

10KV3919BSLA

Conc Code

3919

Major Code

0240

Program Reviewer Comments


Key: 550
Summary of Joint Proposal by the College of Liberal Arts and Sciences and The Grainger College of Engineering to:

(1) Phase down the BSLAS in Physics (Sciences and Letters) effective Fall 2022;
(2) Phase down the BS in Physics (LAS Specialized Curriculum) effective Fall 2022;
(3) Phase down the BSLAS in Physics, Teaching concentration effective Fall 2022;
(4) Consolidate the Physics curriculum into a single BS in Physics program housed in The Grainger College of Engineering;
(5) Rename the BS in Engineering Physics in The Grainger College of Engineering to BS in Physics

Executive Summary
We propose to consolidate the three nearly identical Physics undergraduate degree programs at the University of Illinois into a single BS Physics degree program within The Grainger College of Engineering. This plan will reduce student and parent confusion, provide better student support and cohesion, improve the student experience, and streamline operations for the Department of Physics.

Background
Physics currently offers three primary BS degree programs: Engineering Physics (283 students enrolled in Fall 2020), BSLAS Physics in Sciences and Letters (56 students), and the BS in Physics, LAS Specialized Curriculum (174 students). The Engineering Physics degree with a Minor in Secondary Education and the BSLAS in Physics, Teaching Concentration (2 students) are additional options available for students interested in high-school teaching as a career. The MATH/PHYS GPA graduation requirement for Engineering Physics and for taking advanced classes in the LAS Specialized Curriculum was recently changed to a 2.0. With this modification, the three main Physics BS degree programs are now closely aligned with only minor curricular differences.

The resources needed to educate students enrolled in a Physics undergraduate degree program, regardless of their home college, are largely provided and administrated by The Grainger College of Engineering (GCOE). The Physics faculty and staff who are responsible for delivering instruction, developing programming, and providing support to all Physics majors are part of the GCOE. All academic advising is also provided by the Department of Physics and the GCOE—the Physics Senior Advisor, Merissa Milton, provides academic advising to every undergraduate Physics major.

Resourcing for support services and access by students varies by their home college (LAS or GCOE). Each college provides technical assistance for their students, including late drops, late adds, credit/no-credit options, withdrawals, and probation. For LAS Physics majors at Illinois, these are the only services exclusively provided by LAS. The GCOE extends some of the support normally delivered only to GCOE students to LAS Physics majors, including the Center for Academic Resources in Engineering (CARE), International Programs in Engineering (IPENG),
Engineering Career Services (ECS), and the Engineering Career Fair. Some, but not all, of these services are duplicated within LAS. The expertise for providing support within LAS, however, lies with the Department of Physics. For example, LAS offers academic success workshops for LAS Physics majors, but those programs are developed and delivered by a staff-person (Assistant Director for Undergraduate Programs Elaine Schulte) from Physics, who is a GCOE and Physics employee.

**Proposal**

We propose to consolidate the three principal Physics degree programs into a single Physics degree (with approximately a 500-student total enrollment) within The Grainger College of Engineering. The Physics degree in GCOE will not change—it is a rigorous program in fundamental Physics, offering courses in theoretical and experimental Physics, advanced laboratory techniques, and opportunities for undergraduate research. Folding all of the Physics students into GCOE will be accomplished by phasing out all LAS Physics programs and renaming the “Engineering Physics” degree to “Physics,” which will align the degree title with equivalent programs at all other research universities. Our goal will be to achieve this change while maintaining constant total enrollment through coordination with The Office of Undergraduate Admissions. An outreach campaign (involving communication with students, families, and high schools) will play a key role in this process, since there are three times more applications to the LAS programs compared with Engineering Physics. This difference is not surprising, given the placement of physics departments in Arts and Sciences at other universities in the US and the degree titles at Illinois.

The admission statistics (e.g., ACT, SAT, and AP exam scores) are the same (within variance) between all primary curricula (Fig. 1). Consolidating our degrees will therefore not affect access to Physics degrees. Furthermore, the demographic profile of students in these programs are roughly the same, with the exception of higher international enrollment in the LAS programs (Table 1).

![Four-year average of admission statistics. The vertical black lines show the standard deviation for the student populations.](image)

**Figure 1.** Four-year average of admission statistics. The vertical black lines show the standard deviation for the student populations.

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Caucasian</th>
<th>Asian American</th>
<th>Hispanic</th>
<th>Multi-racial</th>
<th>Out-of-state</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engineering Physics</strong></td>
<td>17%</td>
<td>44%</td>
<td>21%</td>
<td>6%</td>
<td>5%</td>
<td>23%</td>
<td>21%</td>
</tr>
<tr>
<td><strong>LAS Physics</strong> (aggregated)</td>
<td>16%</td>
<td>42%</td>
<td>13%</td>
<td>5%</td>
<td>4%</td>
<td>22%</td>
<td>34%</td>
</tr>
</tbody>
</table>
Table 1. Demographic information. The race/ethnicity categories show the fraction of students who self-report these identities. Less than 1% of the report as African American, Hawaiian, Pacific Islander, or Native American. The out-of-state fraction is determined for students who are US citizens or permanent residents.

Student benefits
Consolidating the Physics programs at Illinois will reduce confusion on the part of students and their parents, streamline operations, and offer students superior and more comprehensive services. Based on interactions between Physics faculty, advising and academic staff, students, and parents as well as surveys, it is evident that having three nearly identical Physics programs is confusing for prospective students and their families. Many potential students parse the Engineering Physics degree as being more applied and aimed at private-sector employment compared with the LAS programs, which is not correct. Incoming students also sometimes incorrectly believe that the LAS and Engineering programs involve different faculty and classes. Consolidating the three main Physics degrees into a single flexible curriculum will make advertising our undergraduate programs more straightforward and the application process simpler.

Merging the Physics programs into The Grainger College of Engineering will also streamline operations. The Physics Senior Advisor, Assistant Director for Undergraduate Programs, and Undergraduate Records Office Administrator support all LAS and GCOE Physics students, and therefore must interface with a broad range of staff, procedures, and policies across both colleges. Unifying our programs into the Department of Physics’ home within The Grainger College of Engineering would simplify and reduce the overhead of advising students and enable better support for awards and scholarships and resolve difficulties created by differing expectations and academic processes between the colleges, such as those affecting students on academic probation. The students would also form a more integrated cohort and be able to share advice and experiences more coherently.

Finally, students would receive more comprehensive and appropriate services by consolidating Physics degree programs into GCOE. The agreement that allows LAS Physics students to access key GCOE support services (such as Engineering Career Services and the Career Fair) that are central to their education and future career is informal. This solution is not necessarily permanent and is dependent upon the goodwill of the GCOE leadership. Furthermore, LAS students are not allowed access to Women in Engineering (including the early move-in program), the Academic Redshirt in Science and Engineering program, and the Morrill Engineering Program. This situation creates a two-tiered system within our major and discourages participation by underrepresented minorities.

There is broad agreement that this plan best serves Illinois Physics students. Over the last year, several meetings involving college and department leaders Associate Dean for Undergraduate Programs in Engineering (Jonathan Makela), Associate Head for Undergraduate Programs in Physics (Brian DeMarco), Associate Dean for Life and Physical Sciences in LAS (Matthew Ando), Associate Dean for Curricula and Academic Policy in LAS (Kelly Ritter), and Associate Dean for Student Academic Affairs in LAS (Barbara Hancin-Bhatt) have been held to discuss these issues. The Department of Physics has also consulted with its Physics Student Advisory Board (composed of students elected by each cohort) and its external advisory board (constituted from senior leaders and alumni across academia and industry). There has also been consultation with the Office of
Admissions (Andrew Borst and Nancy Walsh) and the University Registrar (Megan Hazan and Deb Forgacs). There is strong consensus that consolidating the Physics programs into the GCOE best meets the needs of Physics students at Illinois.

**Phase-down and teach-out plan**

We propose a relatively simple phase-down plan for closing the BSLAS Physics in LAS Sciences and Letters, the BS in Physics, LAS Specialized Curriculum, and BSLAS in Physics, Teaching Concentration: the admission targets are set to zero in Y1. Continuing students are not allowed to declare an LAS Physics major starting in Y1. Also starting in the first year, the Engineering Physics admission target will be increased by a commensurate amount in order to maintain a roughly fixed student population in Physics degrees.

By agreement with the GCOE, all students enrolled in an LAS physics degree program at the beginning of the phase-down period may directly transfer to Engineering Physics during the phase down. Students who start at Illinois during the phase-down period as a first-time freshman in a non-Physics degree program who are interested in pursuing a Physics degree will follow the standard Pre-Engineering Program pathway into the Engineering Physics degree program. External transfer students who transfer to Illinois in a non-Engineering major are ineligible to transfer into an Engineering program. Therefore, during the phase-down period, external transfer students interested in the Engineering Physics degree will need to directly transfer into that program (as is currently the case). Teaching out the LAS degrees for students who wish to remain in those programs is straightforward, since the curriculum involves the same classes that are taught for the Engineering Physics degree. Furthermore, capacity is already in place to accommodate these students.

In this plan, students will retain access to secondary education certification through the secondary education minor. Students in the Engineering Physics degree can complete this minor and obtain certification to teach. This option will not change under the consolidation plan.

Once admissions to the LAS Physics programs is eliminated, students will lose the opportunity to pursue double majors: the GCOE only permits dual degrees. This change will impact a limited number of students. Approximately 3% of our students pursue a double major; the most popular options are double majors in Physics and Astronomy or Math. Of those students, we estimate that

<table>
<thead>
<tr>
<th></th>
<th>Fall 2021</th>
<th>Phase-down Y1</th>
<th>Y2</th>
<th>Y3</th>
<th>Y4</th>
<th>Y5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engineering Physics admission target</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering Physics admission target</td>
<td>80</td>
<td>145</td>
<td>147</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td><strong>LAS Physics admission target</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAS Physics admission target</td>
<td>60</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Table 2. Admission targets for the LAS Physics phase-down plan. Starting in Y1, no students are admitted to the LAS Physics degree programs and students continuing are not allowed to declare these majors. This table shows planned growth in the Physics enrollment.*
fewer than five per graduating class would not have sufficient transfer or AP credit at matriculation to complete a dual degree in four years. The Astronomy department will be proposing an AstroPhysics BSLAS degree program to accommodate students interested a combination of Physics and astronomy, but who do not want to pursue a dual degree.

Physics @ Illinois Facts

- Since its founding, the Department of Physics has been in the College of Engineering at Illinois; all faculty and staff in the Department of Physics are employees of The Grainger College of Engineering.
- The Department of Physics and The Grainger College of Engineering are responsible for administering and delivering all Physics courses at Illinois.
- There is no significant difference between the admission profiles of LAS Physics students and Engineering Physics students.
- All students enrolled in a Physics major at Illinois pay the same differential tuition; the proposed consolidation of degrees will not result in a tuition change for any students.
- Students in both LAS Physics and Engineering Physics programs are advised by staff in the Department of Physics in The Grainger College of Engineering.
- The requirements for the degree programs offered by the Department of Physics are largely equivalent; in practice, student academic records upon graduation from Illinois are nearly indistinguishable between LAS Physics and Engineering Physics students.
Suzanne,

Thank you for reaching out, and for your helpful explanation. I am happy that the number of licensed physics teachers per year is on the rise, following the State Board of Education's approval of your proposal in 2017. I would think that any student at our institution who successfully achieves a physics major would be able to teach high school physics, if they were personally suited for teaching. (I only wish the numbers were higher; physics is such a critical science subject.)

I am also pleased to hear that when the proposals pass, the Dean of the College of Engineering will participate on the Council for Teacher Education. I expect the Dean will have some interesting input to offer the group.

I'll reach back out if I receive questions from my subcommittee members.

All best,
Jennie

---

Hello Jennifer:

I wanted to add to EPC Subcommittee A’s discussion of the physics program changes. The Council on Teacher Education is aware of and supports the discontinuation of the teaching concentration in physics. In early 2017, the Council worked with a physics faculty representative to examine options
that might increase enrollment in physics teacher licensure programs, as this is a teaching area of
great in Illinois high schools. The Illinois State Board of Education approved our 2017 proposal to
them requesting permission to allow any UIUC physics student (any physics major, either College) to
receive teacher licensure. Rules had previously been written that granted licensure only to College of
LAS physics majors who elected the teaching concentration. Since this program change has been
implemented, the number of licensed physics teachers per year has increased – I’d like to say
“dramatically increased” but that would probably be overstating as the number is still small. In
recent years before the rule change, we typically had between 0-2 individuals completing physics
teaching credentials each year. Since the change, we have had 5 or more each year.

As such, the elimination of the Teaching of Physics concentration and consolidation of these majors
in the Grainger College of Engineering should not have any negative effect on access to teacher
licensure in physics on our campus. If the set of proposals pending at EPC is approved, per University
statute (Article VII, Section 3), the Council will invite the dean of the College of Engineering to
participate as a member on the Council on Teacher Education.

I’m happy to respond to any questions you or subcommittee members have regarding these
proposals and teacher licensure.

Thank you!
Suzanne

Suzanne Lee
Council on Teacher Education
University of Illinois
Suzannel@illinois.edu
217-333-2804
Hi Kelly,

Thank you for your extremely timely response -- and Yes! This indeed answers the question, and in the way I had earnestly hoped.

I'll let you know if anything else comes up; it sounds like you're well-placed to get the information, if you don't already have it.

All best,
Jennie

Hi Jennie:

Thanks very much for writing, and I hope you and Bob are doing well also (and your delightful pets, too!). I forwarded your query below to my folks in Physics, since they will of course be the ones determining PHYS course enrollments, as they always have with that department in their college. This is what they (Brian DeMarco, who worked with Jonathan Makela and I on this proposal) said:

“Yes. Students in any college on campus can take physics classes, as long as we have sufficient capacity and they have met the pre-requisites. As Jennie mentions, introductory physics is required for many majors across several colleges. We serve those students (from LAS, ACES, FAA, etc.) now and will continue to do so: we increase our capacity in these courses to meet the demand from across campus.”

So, I think this answers your sub-committee’s questions, but if not, please let me know. Brian and I (and Jonathan Makela) are pretty much on one another’s speed dial these days, with our coordination of various programs across the colleges, so I’m happy to reach out again if other issues come up. I really appreciate your attempt to bring the proposal to the committee for a vote on Monday!

Sincerely,

Kelly
From: "Pahre, Jennifer N" <jpahre@illinois.edu>
Date: Wednesday, January 20, 2021 at 2:32 PM
To: "Ritter, Kelly Allison" <ritterk@illinois.edu>
Subject: EP Physics Proposals -- A Question for the Sponsor

Hi Kelly,

I hope that your week is going well, and that you and your family remain healthy.

As you may recall, I'm the chair of subcommittee A of the Senate Educational Policy Committee. The four new Physics proposals (EP 21.042, 043, 044, and 045) have come to my subcommittee for review. I and my subcommittee members think that it makes good sense to consolidate the three nearly identical programs into a single Physics degree in the Grainger College of Engineering.

A couple members of my subcommittee had late-breaking questions, and thus I am reaching out. Our next Ed Pol meeting is this coming Monday. I am not sure if it will be possible to clear up these questions before then, but I’d like to try so that I can present your proposals with all pending questions answered to facilitate swift approval.

The questions all concern one issue: the ability of students in other colleges to take physics courses. For example, would LAS students be able to do so? Premed majors (and likely others) need physics as part of their preparatory curriculum. What about students in colleges other than LAS -- such as ACES?

I look forward to hearing from you.

All best,

Jennie