

Academic Department Student Success Plan Update 2015-2018

Department: Center for Science Education

Department Chair: Eulsun Seung, Director

Department Mission: To provide top quality, research-based programs and courses to prepare potential elementary, middle, and high schools science teachers for effective science teaching careers in Indiana and beyond. Our faculty will undertake research to create new knowledge for the academic community in Science Education, utilize research findings in teaching, and provide service and outreach for Science Education at all levels, including pre-K-12, college, and parent audiences.

Department Freshmen (1st year) Retention¹ Goal(s):

1. To increase the retention rate by 93.0 % for the Fall 2017 target.

Action Steps (with dates & person(s) responsible):

1. Write letters to accepted students to briefly introduce our Science Education program.
 - Target date for completion: May 1, 2016
 - Persons responsible: Eulsun Seung
2. Meet with freshmen after they receive interim grades to check on their academic status, and introduce
The Science Education curriculum and teacher licensing process.
 - Target date for completion: October 10, 2016
 - Persons responsible: Eulsun Seung
3. Invite freshmen to an annual open house.
 - We offer an annual open house and invite all Sciences and Science Education majors in the Fall.
 - Target date for completion: September 30, 2016
 - Persons responsible: Eulsun Seung, Gary Patterson
4. Invite freshmen to Science Education seminars
 - We plan to provide Science Education seminars every semester. The main purpose of these seminars is to provide our Science Education majors useful information regarding required science and education courses, campus life, and science teaching careers. Science Education majors can also make connections with local science teachers and other majors through these seminars.

¹ Departments w/o undergraduates can adapt the retention and persistence to completion sections to serve their graduate student success purposes or alternatively, integrate into the Other Goal(s), Action Steps, and Benchmarks of focal interest to department section at the end of the template.

- We will invite local, experienced science teachers and recent teaching graduates as guest speakers. Science Education majors can receive useful information regarding student teaching, the content tests for licensure, and science teaching careers.
- The science education student organization will participate in preparing these seminars. Senior majors can offer a seminar session to provide junior peers useful information for campus life and to successfully complete required courses.
- Target date for completion: November 15, 2016, February 15, 2017, April 15, 2017
- Persons responsible: Eulsun Seung, Gary Patterson

<i>Retention Benchmarks²</i>	Fall 2012 cohort:	Fall 2013 cohort:	Fall 2014 cohort:
(by latest department)	75.0 %	100.0 %	85.71 %
	Fall 2015 target:	Fall 2016 target:	Fall 2017 target:
	87.0 %	90.0 %	93.0 %

Other Freshmen Retention related benchmarks of focal interest to department³

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Department Persistence to Completion Goal(s):

1. To increase the completion rate by 35% for the Fall 2014 target.
2. To increase the number of students completing the Science Education major to 5 by Fall 2018.

Action Steps (with dates & person(s) responsible):

1. Invite Science Education majors to an annual open house.
 - Target date for completion: September 30, 2016
 - Persons responsible: Eulsun Seung, Gary Patterson
2. Provide Science Education seminars for majors every semester
 - Target date for completion: November 15, 2016, February 15, 2017, April 15, 2010
 - Persons responsible: Eulsun Seung, Gary Patterson

² Department level current and historical retention and completion benchmark data to be integrated into the plan can be found through Blue Reports: <http://irt2.indstate.edu/cms/ir/blue-reports/>.

³ A retention and completion rate is an essential benchmark, but it is not necessarily the only benchmark of interest to a department. Others of interest to the department can be integrated as well.

3. Encourage Science Education majors to join the science education student organization. By participating in various activities run by the student organization, Science Education majors can make connections with peers and increase their motivation to teach science. Possible activities run by the student organization
 - Providing a science night event for local K-12 students (February, 2016)
 - Teaching summer science camp children (July, 2016)
 - Supporting local secondary school science clubs (November, 2016)
 - Persons responsible: Eulsun Seung
4. Provide space for the science education student organization: Room 179, Science Building
 - Target date for completion: October 30, 2015
 - Persons responsible: Eulsun Seung
5. Provide space for Science Education majors to study between classes in the Science Building.
 - Target date for completion: October 30, 2015
 - Persons responsible: Eulsun Seung
6. Encourage and support Science Education majors to participate in the SURE program.
 - Target date for completion: May 1, 2016
 - Persons responsible: Eulsun Seung
7. Encourage Science Education majors to attend the science teacher conference. : HASTI (**Hoosier Association of Science Teachers, Inc**) conference, IN
 - Target date for completion: February 28, 2016
 - Persons responsible: Eulsun Seung, Gary Patterson
8. Do explicit degree audit when students complete 80 – 90 credit hours.
 - Persons responsible: Eulsun Seung
9. Encourage Science Education majors to use the Help Center for tutoring in their science courses.
 - Target date: Advising meeting
 - Persons responsible: Eulsun Seung
10. Provide consulting sessions for education courses.
 - At the beginning of semester, provide a science education seminar to provide information regarding education courses.
 - During the semester, when students request consulting sessions for education courses, pair them with a senior level student to provide these sessions.
 - Persons responsible: Eulsun Seung

<i>Completion Benchmarks</i>	Fall 2009 cohort:	Fall 2010 cohort:	Fall 2011 cohort:
(by latest department)	28.57 %	20.0 %	No data
	Fall 2012 target:	Fall 2013 target:	Fall 2014 target:
	25 %	30 %	35 %

Other Persistence to Completion related benchmarks of focal interest to department

<i>Completion Benchmarks</i>	Fall 2013 official:	Fall 2014 official:	Fall 2015 official:
(Number of graduates)	4	2	2
	Fall 2016 target:	Fall 2017 target:	Fall 2018 target:
	3	4	5

Other Goal(s), Action Steps, and Benchmarks of focal interest to department⁴:

Goals: Developing a new curriculum(concentration) for middle school science licensure.

1. To increase the number of Science Education majors who pursue a middle school science licensure.
2. To increase the number of Elementary Education and Mathematics Education majors to pursue a second degree in Science Education.

Rationale: The current Science Education curriculum, which was developed in response to REFA (i.e., state licensure rules), requires that our majors meet or exceed the existing science majors' coursework on campus. Thus currently, we offer undergraduate degree programs in four areas: Double major in Science Education with Biology, Chemistry, and Physics, and Major in Science Education with a concentration in Earth Science. Science Education majors who complete one of these programs and pass the content test can have a teaching licensure which covers grades 6 -12. However, this curriculum requires at least five years to complete. Considering the shortage of science teachers in Indiana and the small number of students in our

⁴ Departments may have student success related goals, action steps, and benchmarks that do not fit neatly into the other categories. If so, feel free to place them here.

program, we plan to develop a new curriculum for those who only pursue a middle school science licensure.

Action step: Eulsun Seung

- Meet with the chair of Education Student Service at ISU: October 5, 2015
- Meet the chairs of the Mathematics Education and Elementary Education departments: October 15, 2015
- Meet with Science Education Advisory Committee members to discuss the new curriculum: November 13, 2015
- Prepare a proposal for the new curriculum: November 15, 2015
- Conduct a Science Education Advisory Committee meeting to approve the proposal: November 18, 2015
- Submit the proposal: November 20, 2015
- Begin the new curriculum: Fall 2016