STEM Skills Survey
Default Question Block

The survey consists of nine questions. Please take the next five to ten minutes to answer the questions.

In what year in school are you?
- Freshman
- Sophomore
- Junior
- Senior
- Other

What is your major or intended major (if you have more than one, select all that are applicable)?
- Undecided - Agricultural and Life Sciences
- Agricultural Biochemistry
- Agriculture and Life Sciences Exploration
- Animal Ecology
- Agricultural and Life Sciences Exploration
- Animal Ecology
- Forestry
- Biochemistry
- Bioinformatics and Computational Biology
- Biological Pre-Medical Illustration
- Biological Systems Engineering
- Biology
- Botany (Biology)
- Education: Biology
- Microbiology
- Education: Kinesiology and Health
- Nutritional Science
- Physical Education (Kinesiology and Health)
- Environmental Science
- Preprofessional Health Programs
- Software Engineering
- Athletic Training (Kinesiology and Health)
- Genetics
- Agricultural Engineering
- Global Resource Systems
- Agricultural Studies
- Education: Earth Science
- Computer Science
- Insect Science
- Agronomy
- Education: Physics
- Kinesiology and Health
- Biophysics
- Geology
- Kinesiology and Health major (Athletic Training)
- Horticulture
- Meteorology
- Kinesiology and Health major (Community and Public Health)
- Chemistry
- Physics
- Materials Engineering
Please rank how important it is for you to obtain the following science process skills (examples of such skills are listed in the left column) by the time you graduate with an undergraduate degree.

<table>
<thead>
<tr>
<th>Skill Description</th>
<th>Unimportant</th>
<th>Of little importance</th>
<th>Moderately important</th>
<th>Important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpreting data: graphs and data</td>
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<tr>
<td>Interpreting data: ability to construct an argument from data</td>
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<tr>
<td>Understanding basic statistics</td>
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<tr>
<td>Reading and evaluating primary literature</td>
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<td>Conducting an effective literature search</td>
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<td>Ability to create a testable hypothesis</td>
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<td>Ability to design an experiment: Identifying and controlling variables</td>
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<td>Ability to design an experiment: Proper alignment of experiment and hypothesis</td>
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<td>Ability to design and experiment: Development of proper controls</td>
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<td>Creating the appropriate graph from data</td>
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<td>Communicating results: Oral</td>
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<td>Communicating results: Written</td>
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<td>Creating a bibliography and proper citations of references</td>
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<td>Working collaboratively to accomplish a task</td>
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<td>Being an effective peer mentor</td>
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<td>Working independently when needed</td>
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<td>Knowing when to ask for guidance</td>
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<td>Skill</td>
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<td>Being able to infer plausible reasons for failed experiments</td>
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<td>Being able to effectively monitor their own learning process</td>
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<td>Problem solving/ critical thinking</td>
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</table>

**Which of the following skills are the most important for your career goals? Choose the 3 that are most important to you.**

- [ ] Interpreting data
- [ ] Understanding basic statistics
- [ ] Reading and evaluating primary literature
- [ ] Ability to design an experiment
- [ ] Communicating results: oral and written
- [ ] Working collaboratively to accomplish a task
- [ ] Working independently when needed
- [ ] Knowing when to ask for guidance
- [ ] Being able to effectively monitor their own learning progress
- [ ] Problem solving/ critical thinking

**Which of the following skills are the least important for your career goals to acquire? Please choose 3.**

- [ ] Interpreting data
- [ ] Understanding basic statistics
- [ ] Reading and evaluating primary literature
- [ ] Ability to design an experiment
- [ ] Communicating results: oral and written
- [ ] Working collaboratively to accomplish a task
- [ ] Working independently when needed
- [ ] Knowing when to ask for guidance
- [ ] Being able to effectively monitor their own learning progress
- [ ] Problem solving/ critical thinking

**What other such skills do you think you should acquire by the time you graduate?**


**What percentage of time do you estimate that you spend learning science process skills (as opposed to content) in your science classes?**


**Do you feel that the amount of time you spend learning science process skills is sufficient for your career goals?**

- [ ] Yes
- [ ] No
No

What fraction of time in your classes do you think should be spent on these skills as opposed to content?

Other comments?

Thank you for completing the survey. If you have any questions, please contact Dr. Elizabeth Addis at addis@iastate.edu