**Science & Math Faculty Survey Summary (Fall 2013)**

1. What is your department?

Department Total faculty # responses % Respond

Biology (1 leave) 13 6 46%

Biochem/Chem (1 leave) 10 9 90%

Comp Sci (1 leave) 7 4 57%

Geoscience 5 4 80%

Kinesiology (1 leave) 4 3 75%

Mathematics 7 5 71%

Physics (1 leave) 7 3 50%

Psychology (1 leave) 10 7 70%

Overall response rate: 65%

2. What do you think is positive about our current general education requirement in science/math (i.e., two courses with Science and Mathematics (SM) designation) for non-science majors? (N=36)

Most common comment categories

Better than 0 or 1 course/at least science is required 20 (56%)

Breadth (courses in two different departments) 6 (17%)

Exposure to how science works/scientific inquiry/principles 5 (14%)

Flexibility 3 (8%)

Good non-major courses are offered 3 (8%)

Nothing 2 (6%)

“It is perfect.” 1 (3%)

Also some misperceptions

“One has to be a lab”

“On track to proceed with major”

3. What could be improved? (N=35)

Most common comment categories

No clear common goals/student outcomes/intentionality 10 (29%)

Does it ensure exposure to scientific method/science literacy? 10 (29%)

No lab course required 7 (20%)

Interdisciplinary/non-major or theme courses better 7 (20%)

It’s not prescriptive/structured enough 5 (14%)

Not enough application to the real world 4 (11%)

Does not *require* natural science 3 (9%)

Increase the number of required courses 3 (9%)

Nothing 3 (9%)

4. How important is it for undergraduate non-science majors to learn science/math content (important concepts, facts, knowledge, etc.) versus science/math skills (understanding the process of science and research, interpreting graphs, etc.)? (Please select one response below that best matches your perspective.) (N=39)

Learning skills is more important than learning content. 31%

Learning skills is a little more important than learning content. 31%

Learning skills and learning content are equally important. 33%

Learning content is a little more important than skills. 0%

Learning content is more important than learning skills. 5%

Most common comment categories

Skills will allow them to learn new content later/apply 9 (23%)

Content will be forgotten 8 (21%)

Can’t learn/have skills without content/context 5 (13%)

Skills will last longer 5 (13%)

Content is important 4 (10%)

Skills are important 4 (10%)

Practice in “doing science” is important 2 (5%)

Content/facts will change 2 (5%)

5. In your opinion, what are the three most important skills for students to master in a general education science/math course that meets the SM requirement? (N=35)

Most common comment categories

Interpreting a graph/data 13 (37%)

Statistical/quantitative skills 12 (34%)

Evaluating the quality of evidence (in science or media) 8 (23%)

Using science info for everyday/life decision-making 5 (14%)

Skepticism 5 (14%)

“Scientific method/process” 4 (11%)

Hypothesis testing/formation 4 (11%)

Creating a graph 4 (11%)

Data collection 4 (11%)

Designing a valid study/evaluating a study 4 (11%)

Interpreting data/using data to draw conclusions 3 (9%)

Using/developing models 3 (9%)

Recognizing science vs. non-science 3 (9%)

Critical thinking 3 (9%)

Problem-solving 3 (9%)

Reading critically 3 (9%)

Recognizing patterns/trends 2 (6%)

Understanding and working “story problems” 2 (6%)

Ability to evaluate sources 2 (6%)

Writing in science (being concise, clear) 2 (6%)

Reading primary sources 2 (6%)

Ability and confidence to research a topic of interest 2 (6%)

Understanding the difference between hypotheses,

evidence, theory, etc. 2 (6%)

Making observations 2 (6%)

Importance of sample size 2 (6%)

Questioning & revising beliefs based on data 2 (6%)

The tentative nature of science 2 (6%)

6. In your opinion, what are the three most important concepts for students to master in a general education science/math course that meets the SM requirement? (N=32)

Most common comment categories

Scientific method/process 10 (31%)

Statistics/probability/quantitative skills 5 (16%)

Relationships and differences between the sciences 4 (12%)

Energy 4 (12%)

Evolution 2 (6%)

Uncertainty of science 2 (6%)

Models 2 (6%)

Validity 2 (6%)

Topics in the news/media 2 (6%)