**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%)