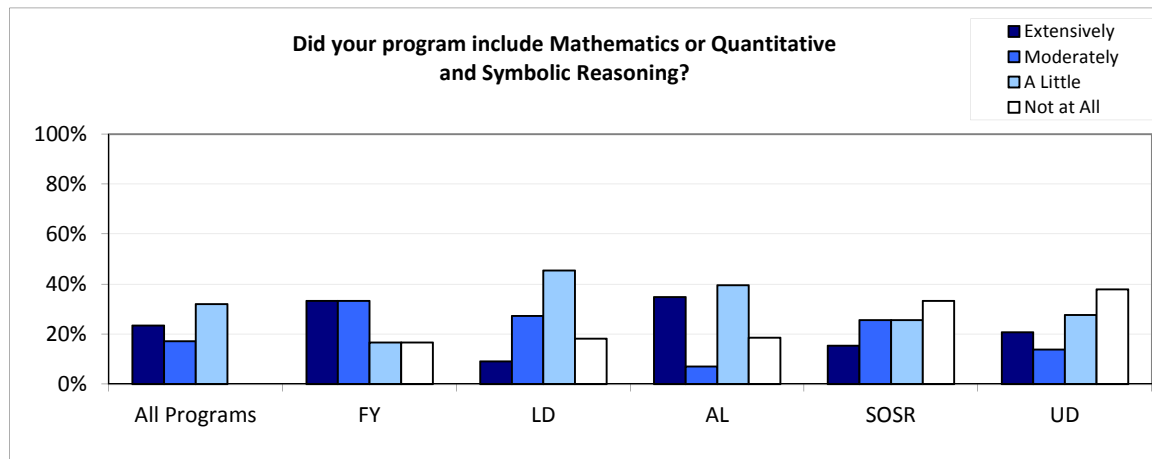
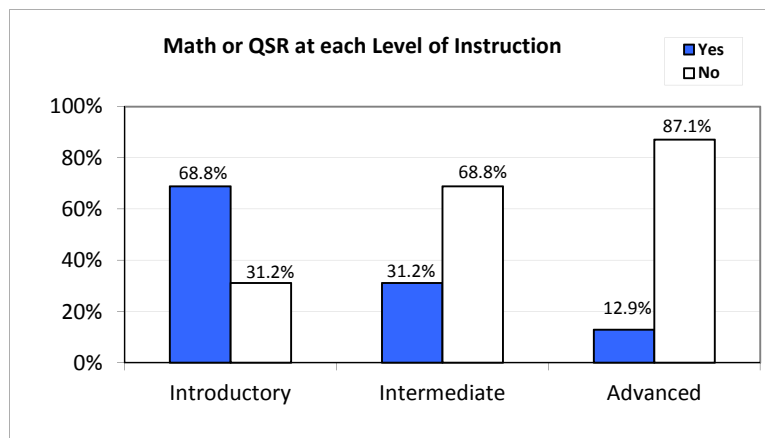


End-of-Program Review 2013-14

Mathematics or Quantitative and Symbolic Reasoning (QSR) in all programs



	Extensively	Moderately	A Little	Not at All	Percent of Programs with any Math or QSR	Programs with any Math or QSR (N)	Programs responded (N)
All Programs	23.4%	17.2%	32.0%	27.3%	72.6%	93	128
First-year (FY only)	33.3%	33.3%	16.7%	16.7%	83.3%	5	6
Lower Division (LD) FY-SO	9.1%	27.3%	45.5%	18.2%	81.8%	9	11
All Level (AL) FR-SR	34.9%	7.0%	39.5%	18.6%	81.4%	35	43
Sophomore-Senior (SOSR)	15.4%	25.6%	25.6%	33.3%	66.6%	26	39
Upper Division (UD) JR-SR	20.7%	13.8%	27.6%	37.9%	62.1%	18	29



All programs with Mathematics or QSR	Program Type	Faculty	Extent	Fields/areas of Math or QSR		
				Introductory	Intermediate	Advanced
Advanced Research in Environmental Studies with A. Styring	UD	*Alison Styring	Extensively	Trigonometry - calculating coordinates in three dimensions from compass angle, clinometer angle and distances.		Statistics - parametric, non-parametric, multivariate approaches
Advanced Research in Environmental Studies with E. Thuesen	UD	*Erik Thuesen	Extensively	Statistics	Statistics	
Algebra to Algorithms	AL	*Richard Weiss, Judith Cushing	Extensively	Algebra, simplification, sequences & series Number Theory, Derivatives Probability, Statistics, limits, convergence Trigonometry, Geometry	Algebra, simplification, sequences & series Probability, Statistics, limits, convergence	Algebra, simplification, sequences & series
Avian Research and Monitoring Methods: Winter Bird Ecology	UD	*Alison Styring	Extensively		Statistics	Statistics
Business Foundations	AL	*Allen Jenkins	Extensively	Math Statistics Finance Math	Math Finance Math Descriptive/ analysis/ interpretive Problem Solving/ Quantitative Reasoning	Descriptive/ analysis/ interpretive
Caribbean Cultural Crossings	AL	*Tom Womeldorf, Alice Nelson	Extensively	Data sorting and plotting using Excel; analysis and interpretation of data		
Computer Science Foundations	AL	Neal Nelson(F), Richard Weiss(W,S), *Sheryl Shulman, Paul Pham	Extensively	Mathematics	Mathematics	
Computers and cognition	AL	*Ab Van Etten	Extensively		Discrete math	
Doing Research: Addressing Topics That Matter	AL	*Emily Lardner, Allen Mauney	Extensively	Statistics		
Energy Systems and Climate Change	SOSR	*EJ Zita	Extensively	Algebra based theoretical analysis System Analysis Data Analysis	Algebra based theoretical analysis System Analysis Data Analysis	Algebra based theoretical analysis System Analysis Data Analysis
Genes and Evolution	UD	*Donald Morisato, Heather Heying	Extensively	Statistics Probability	Statistics	
Inside Language	AL	*Diego de Acosta	Extensively	Phonology Syntax		
Introduction to Natural Science	AL	*James Neitzel, Kristopher Waynant, Mario Gadea(F,W)	Extensively	Data analysis Statistics	Bioinformatics	
Language Counts	AL	*Richard Weiss, Diego de Acosta	Extensively	Introductory cryptography Introductory linguistics: phonetics, phonology and syntax		

Mammals and Birds in the Landscape	UD	*Peter Impara, Dina Roberts	Extensively		Landscape Metrics	
Mathematical Systems	SOSR	*Brian Walter	Extensively			Real Analysis Abstract Algebra Set Theory Combinatorics Probability Logic: These should each get their own entry, but I'm out of room on this form
Matter and Motion	AL	*Clyde Barlow(F,W), Neil Switz	Extensively	First year Calculus Algebra Geometry Trigonometry Data Interpretation and Acquisition		
Molecule to Organism	SOSR	*Lydia McKinstry, Clarissa Dirks	Extensively		Statistics	Descriptions/analyses/interpretations of data, applications of algebra
Moving Towards Health	LD	*Mukti Khanna, Cynthia Kennedy	Extensively	Interpretation of data Percentages Metrics Solving personal finance problem		
Northwest Developments: Land Use, Economics and the Politics of Growth	AL	*Jennifer Gerend, Glenn Landram	Extensively	Statistics Data analysis		
Our Changing Oceans: Bringing Together Science and Policy	FY	*Rika Anderson	Extensively	Algebra Statistics	Descriptions/analyses/interpretations of data	
Patterning the World: Connecting Mathematics and Science	AL	*Krishna Chowdary, Neal Nelson	Extensively	Precalculus		
Patterning the World: Connecting Mathematics and Science (S)	AL	*Krishna Chowdary, Neal Nelson	Extensively	Precalculus		
Riparian Environments	UD	*Kenneth Tabbutt, Alison Styring	Extensively		Statistics Spatial Data Analysis (GIS)	Data Analysis
Taking Things Apart: A Scientific and Artistic Exploration	AL	*Donald Morisato, Bob Haft	Extensively	Symbolic reasoning for genetics Trigonometry for optics		
The Design of Computational Things	AL	*Paul Pham	Extensively	Algebra		
The Science Behind the Headlines: What's the Truth?	FY	*Paula Schofield, Andrew Brabban	Extensively	Scientific Mathematics: algebra, trigonometry, data interpretation and graphing		
Undergraduate Research in Scientific Inquiry with D. McAvity	SOSR	*David McAvity	Extensively			Non Linear Dynamics
Undergraduate Research in Scientific Inquiry with J. Neitzel	SOSR	*James Neitzel	Extensively		Data Analysis, Statistics	

Undergraduate Research in Scientific Inquiry with N. Switz	SOSR	*Neil Switz	Extensively		Math relating to wave motion (algebra, differential equation) Math relating to optics (algebra, calculus) Math relating to image processing (calculus, Fourier series)	
Animal Behavior and Zoology	UD	*Heather Heying	Moderately		Statistics	Descriptions/analyses/interpretations of data Experimental design Hypothesis generation
Bodies and Music in Motion	LD	*Andrea Gullickson, Robert Esposito	Moderately	Solving spatial design problems Interpretation of data/graphs		
Business and Management Strategies for the Private and Public Sectors	UD	*Theresa Aragon, Lee Lyttle	Moderately	Financial accounting		
Business, Finance and Strategy	AL	*Glenn Landram	Moderately	Statistics, financial calculations, interpretation of data	Statistics, financial calculations, interpretation of data	
Clinical Psychology: The Scientist-Practitioner Model	SOSR	*George Freeman, Terry Ford	Moderately		Research methods in the Social Sciences	
Culture as History	SOSR	*Susan Preciso, Mark Harrison	Moderately	Statistics Interpretations of data Solving spatial design problems		
Current Social and Economic Issues: Explanations, Actions and Solutions	LD	*Peter Bohmer	Moderately	Quantitative Reasoning Social Statistics		
Earth Matters: Geology and Chemistry	AL	Dharshi Bopegedera, *Abir Biswas	Moderately	Algebra Statistics Interpretations of data		
Entrepreneurship and Economic Development	SOSR	*John Filmer	Moderately		Critical reasoning	
Fire and Water: The Sun, Oceans and Atmosphere in Climate Change	SOSR	*Gerardo Chin-Leo, EJ Zita	Moderately	Algebra		
From the Fire: Art and Science of Ceramics	LD	*Dharshi Bopegedera, Susan Aurand	Moderately		Arithmetic	
Interrogating Emotions	SOSR	*Laura Citrin, Anne de Marcken (Forbes)	Moderately		Statistics Quantitative data analysis	
Marine Life: Marine Organisms and Their Environments	UD	*Gerardo Chin-Leo, Erik Thuesen	Moderately	[Faculty did not elaborate.]		
Ocean Life and Environmental Policy	FY	*Erik Thuesen	Moderately	[Faculty did not elaborate.]		
Psychology as a Hub Science	SOSR	*Mark Hurst	Moderately	Statistics	Description/interpretation of data	
Sacred Intersections: The Arts of Medieval Christianity and Middle Islam	SOSR	Suzanne Simons, *Ann Storey	Moderately	Symbolic geometry		

Shipwrecked! Imperialism, Capitalism, Racism, and Cannibalism in the Golden Age of Sail	AL	*John Baldridge	Moderately	Basic trigonometry - by creating simple celestial navigation tools and using them, in conjunction with actual nautical charts, to solve navigation problems Discrete mathematics - regular workshops and lectures that required students to complete relevant discrete math problems		
Student-Originated Studies: Psychology and Integrative Health	SOSR	*Mukti Khanna, Heesoon Jun	Moderately	[Faculty did not elaborate.]		
The Business of Art: Earning a Living as an Artist	SOSR	*Andrew Buchman, Zoe Van Schyndel, Doreen Swetkis	Moderately	Budgets, Grant Proposals, Business Plans Demographics		
The Fungal Kingdom	UD	*Noelle Machnicki	Moderately	Statistics		
The Natural and Evolution of Human Psychology	FY	*Heesoon Jun, Bret Weinstein	Moderately	Statistics Descriptions/analyses/interpretations of data.		
Undergraduate Research in Scientific Inquiry with A. Brabban	SOSR	*Andrew Brabban	Moderately		Algebra Data Analysis Graphing	
A Sense of Wonder	SOSR	*Hirsh Diamant, Nancy Parkes	A little	Sacred geometry/ math nature.		
American Frontiers, Homelands, and Empire	LD	*Zoltan Grossman, Kristina Ackley	A little	Descriptions/ analysis/ interpretations of data.		
American Frontiers, Homelands, and Empire (S)	LD	*Kristina Ackley, Zoltan Grossman	A little	Statistics		
Andean Roots: Language and Cultural Landscape	SOSR	*Rachel Hastings, Steven Scheuerell	A little	[Faculty did not elaborate.]		
Bella Bella or Bust - 2014	AL	Yvonne Peterson(F,S), *Gary Peterson, Michelle Aguilar-Wells(W)	A little	[Faculty did not elaborate.]		
Building Resilient Communities	AL	*Joli Sandoz, Gillies Malnarich	A little	Descriptions of data		
China: A Success Story	AL	*Rose Jang, David Shaw	A little			
China: Business, Economy, Society, Sustainability	AL	*David Shaw	A little	Statistics Analysis and interpretation of		
Cons Swindlers and Cheats	AL	*Zoe Van Schyndel	A little	Statistics		
Consuming Cultures	LD	*Karen Gaul, Julie Russo, Rita Pougiales(F)	A little	Ecological footprint calculation		
Creating Dangerously: Advanced Studies	UD	*Naima Lowe, Therese Saliba	A little	Statistics in lectures-minimal		

Creating Dangerously: Experiments in Feminist and Diaspora Art	LD	*Therese Saliba, Naima Lowe	A little	Stats in lectures - minimal (online editing programs and some statistical analysis in lectures)		
Dance of Life: Creative Process in Motion	AL	*Robert Esposito	A little			
Ecological Agriculture: The Science and Policy of Food Systems	SOSR	*Martha Rosemeyer, Thomas Johnson(F,W)	A little	Calculating soil amendments and stoichiometric calculations of nutrients as they cycle through the ecosystem	Basic statistics	Upper division statistical analysis of data to ANOVA
Education and Empowerment- Understanding Critical Race Theory and Qualitative Research	SOSR	*Grace Huerta, Leslie Flemmer	A little	Introductory interpretation of data		
Evolution and Ethics	SOSR	*Stephen Beck, Karen Hogan	A little	[Faculty did not elaborate.]		
Field Plant Taxonomy	AL	*Frederica Bowcutt	A little		Data analysis	
Healthy Inequity: Telling the Story and Changing it	UD	*Nancy Anderson, Lori Blewett(F), Frances V. Rains(W,S)	A little	Descriptive analysis of health data		
Ireland in History and Memory	UD	*Sean Williams	A little	Music notation writing and reading	Music notation writing and reading	
Latin American Women Writers	AL	*Alice Nelson	A little	Data Analysis		
Law and Outlaw: Personal Identity and Social Control in the United States	UD	*Julianne Unsel, Artee Young	A little	[Faculty did not elaborate.]		
Madness and Creativity: The Psychological Link	FY	Patricia Krafcik, Carrie Margolin, *Evan Blackwell	A little	Solving spatial design problems		
Narrative Objects	LD	*Steven Hendricks, Jean Mandeberg	A little	Spatial Design Practical applications		

Orissi Dance and Music of India	AL	*Andrew Buchman, Ratna Roy	A little	Critical reasoning skills; analyzing data, understanding elections (using the current national elections in India as a case study).		
Poetry of Place	SOSR	*Suzanne Simons	A little	Spatial Design Poetic Forms		
Political Economy of Public Education: Contemporary Historical Realities	SOSR	*Michael Vavrus, Jon Davies	A little	Reading graphs and tables.		
Power/Play: Balancing Control and Autonomy in the Social World	AL	*Eric Stein, Toska Olson	A little	Analysis of data		
Re-Imagining the Body	AL	*Hirsh Diamant, Cindy Beck	A little			
TRI: Contemporary Indian Communities in a Global Society - Nisqually	UD	*Mary DuPuis	A little	Descriptions/analyses/interpretations of data		
River Reciprocity	AL	*Lucia Harrison	A little	Description, analyses. interpretation.		
Self-Determination in Latin America: Mexico	AL	*Tom Womeldorf, Alice Nelson, Catalina Ocampo	A little	Interpretation of data		
Shame and Its Neighbors	SOSR	*Laura Citrin, Kathleen Eamon	A little	Stats/ reading, empirical studies		
Student-Originated Studies: Nonprofit Internships	AL	*Doreen Swetkis	A little	Many students were working with Excel spreadsheets in their respective internships Lecture on Measurement & Evaluation (surveys, interviews, descriptive stats)		
Student-Originated Studies: Theory and Practice in the Visual Arts	UD	*Evan Blackwell	A little	Interpretations of data Geometry	Solving spatial design problems	
Systems Theory for Business and Organizations	AL	*Kathy Kelly	A little	[Faculty did not elaborate.]		
The Adaptive Meaning of the Musical Mind	AL	*Andrea Gullickson, Bret Weinstein	A little	Interpretations of data, graphs		
The Formation of the North American State	UD	*Jeanne Hahn	A little	Interpretation of data, maps, census material		
The Pillars of Health, Ancient and Modern	AL	*Cindy Beck	A little	Statistics		
The Renaissance Art of Bronze Casting	UD	*Ann Storey, Bob Woods	A little	Solving spatial design problems in sculpture		
Undergraduate Research in Scientific Inquiry with P. Schofield	SOSR	*Paula Schofield	A little			Data Interpretation, Analysis
Applied Biology and Chemistry	SOSR	*Paula Schofield, Andrew Brabban	A little		Applied Math Data Analysis Data Presentation	

*Faculty coordinator