End-of-Program Review 2006-07 Mathematics in Programs



Percent Math of Indicated Programs Programs Programs with any Responded (Extent with any Extensively Moderately A Little Missing) Math Math (N) (N) Not at All All programs 16.9% 16.1% 23.7% 42.4% 0.8% 58% 68 118 33.3% 9 11.1% 22.2% 33.3% 0.0% 67% 6 Core programs Culture, Text and Language 0.0% 7.1% 0.0% 92.9% 0.0% 7% 1 14 3 8 38% Expressive Arts 0.0% 12.5% 25.0% 62.5% 0.0% **Environmental Studies** 27.3% 54.5% 0.0% 0.0% 100% 11 11 18.2% 5 18 Evening and Weekend Studies 5.6% 0.0% 16.7% 72.2% 5.6% 28% 21 Interarea 0.0% 23.8% 42.9% 33.3% 0.0% 67% 14 18.8% 6.3% 0.0% 0.0% 100% 16 75.0% 16 Scientific Inquiry 10 16 Society, Politics, Behavior and Change 25.0% 6.3% 31.3% 37.5% 0.0% 63% 2 5 0.0% 40.0% 0.0% 60.0% 0.0% 40% Tribal: Reservation-based

Note: Courses, contracts, internships, and Student Originated Studies (SOS) programs were not asked to participate in the End-of-Program Review.

End-of-Program Review 2006-07 Mathematics in Programs

Level(s) at which mathematics were taught in programs that included it, N=68 *Faculty could check all that apply; therefore, numbers do not add up to 100%*

	Percent of Programs with Sciences at level	Number of
Introductory	72.1%	49
Intermediate	32.4%	22
Advanced	20.6%	14
Did not indicate any level	1.5%	1

Number	of
T:	

	Times
Areas of Math Incorporated:	Mentioned
Algebra	12
Algebra (Beginning and Intermediate)	1
Linear algebra, matrix mechanics (applied to quantum mechanics)	1
Algebraic manipulations	1
Analyzing patterns in nature	1
Applied Math differential equations, non-linear dynamics, linear	
algebra, vector calculus. partial differential equations.	1
Applied Mathematics for Advanced Biology and Chemistry, mostly	
within a laboratory setting	1
Basic Numeracy	1
Business math and Excel spreadsheets	1
Budgets for projects	1
Formulas, Budgeting, Marketing	1
Basic budgets in a brief unit on Business	1
Simple Budgeting and business planning	1
Calculation	1
Calculus	2
Vector Calculus (applied to electromagnetism)	1
Advanced Calculus, partial and total differential equations	1
Computer Architecture	1
Computer Programming	2
Computer Science	2
Content Analysis	1
Problems that involved conversions and calculations involving logs	
and exponents, e.g. pH.	1
Critique of research methods, articles	1
Data Analysis	2

	Number of
	Times
Areas of Math Incorporated:	Mentioned
Data Analysis (ratios/proportions, identification of	
trends/patterns, and interpreting graphical and tabular data	1
Mainly used to help students how to read charts of quantitative	
information, e.g., census data. (Data Analysis?)	1
[Data Interpretation] Data Supporting for example the chemical	
make-up of air pollutants and the absolute percentage of each	
kind in overall NAAQ or CAA standards for factory hog farms: how	
the courts/EPA allow point source air pollutants to rise above	
levels allowed	1
[Data Interpretation] Multiple workshops and lectures that	
involved reading and interpreting graphs/tables/charts	1
Discrete Mathematics	1
Economics	1
Some economic analysis	1
Exponential Growth Models	1
	1
We studied geography and demographics of China by studying	l
nonulation growth/distribution and making a Chinese man	1
Geometry	6
Geometry (Fuclidean and non-Fuclidean)	1
Geometry (Introductory)	1
History and Philosophy of Mathematics	2
Philosophy of Mathematics	1
Identification and Analysis of Trends	1
Interpreting graphs tables charts	2
	6
Math to understand elements of Physics	1
Measuring	1
Ouantitative Methods for Business	1
	5
Quantitative and Symbolic reasoning-navigation	1
Quantitative and Symbolic reasoning havigation	1
Pattern Description	1
Perspective Drawing (four-week module)	1
	1
Probability and Algebra to Calculus lovals of relatedness in family	I
arouns, and to calculate cost honofit analyses associated with	
yroups, and to calculate cost-benefit analyses associated with	1
Various Deriaviors.	l 1
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Research Methods This included Quantitative Qualitative and	<u> </u>
Mixed Methods	1
Sampling	1
	I

	Number of
	Times
Areas of Math Incorporated:	Mentioned
Scientific Mathematics	1
Set Theory	1
Spatial Analysis	1
Spread sheet Analysis, including pivot tables for analyzing very	
large data sets.	1
Spreadsheet use	1
Statistics	15
Statistics (Introductory)	2
Statistics (Introductory and Advanced)	1
Statistics (Introductory and Intermediate)	1
Statistical and Quantitative Methods in Ecology	1
Stella modeling software that uses rates of change and amounts	
as the basic tools for building models of environmental systems.	1
Some discussion of Statistical Thinking and Inference	1
Some Statistical Analysis on Women's issues	1
Strategic Reasoning	1
Study Design	1
Timelines and Timecharts	1
Trigonometry	1
Trigonometry (Introductory)	1
Unit Conversions	1
Use of public data	1
Vector Analysis	2

Additional Comments

Logic and Statistics to calculate (for example) appropriate ceilings or caps for carbon trading proposals as part of global warming legislation. (Note: Logic and Statistics are counted in the table above)