QUANTITATIVE REASONING EMPHASIS IN PROGRAMS

At the end of every Evergreen program (8 or more credits), faculty are asked to complete an End-of-Program Review so that Evergreen can review and improve its curriculum. What follows is a table expressing data collected over the last five years, 2001-2006, regarding one section from the End-of-Program Review: **Did your program include Quantitative Reasoning? If yes, how?** For the first question, "Did your program include Quantitative Reasoning?" faculty could answer in one of three ways: "Yes, major emphasis"; "Yes, minor emphasis"; or "No." The second question, "If yes, how?" was left open-ended. The chart below is organized first by emphasis—major, then minor, then none—and within these categories, programs are organized by planning unit, then alphabetically.

Academic Year	Program Name	Planning Group	Detail1	Detail 2	Detail 3	QR emphasis	How was Quantitative Reasoning included in your program?
2001-02	Algebra to Algorithms	CORE	SI			Major	As the major topic of study
2001-02	Ecology of Hope	CORE	CTL	SI	ES	Major	Students did great deal in QR workshops along with estimation, quantitative relationships, order of magnitude, relationship of earth size to solar system... not so much computation as reasoning. This was a struggle with students due to lots of math anxiety. They became more comfortable with basic reasoning exercises.
2005-06	History and Evolution of Disease	CORE	SI	SPBC		Major	Our program included extensive study of biological anthropology, microbiology, and human biology (anatomy, physiology, genetics, immunology). We also included quantitative reasoning in statistics, measurement and unit conversion, growth modeling (exponential growth, logarithmic scale), and various applied problems that involved algebra and geometry.
2002-03	Life on Earth	CORE	ES	SI		Major	Lectures, labs, and math workshops developed quantitative reasoning. Worked great.
2004-05	Negotiating Cultural Landscapes	CORE	SPBC	EA		Major	2-quarter statistics component. Text reading and homework fieldwork and analysis of data, examination of data in newspapers, analysis of program data set, designing own study using program data.
2002-03	Patterns Across Space and Time	CORE	EA	SI		Major	Weekly QR and computer workshops. It was a critical component of the program.

Academic Year	Program Name	Planning Group	Detail1	Detail 2	Detail 3	QR emphasis	How was Quantitative Reasoning included in your program?
2003-04	Perception	CORE	SI	CTL		Major	This is rather intimately linked to the response given concerning science/math. Almost without question, every aspect of the science that the students were involved in had a quantitative reasoning component. What that component was varied with the lab experiment or topic. On some weeks, students collected data and were asked to graph and analyze it. Other weeks, students made measurements of the refractice properties of light using different lenses and applying Snell's Law, calculated the refractice index.
2001-02	Trash	CORE	ES	SPBC		Major	In fall, we worked with the QR Center to help students learn to work with data (primary & secondary statistics from readings), unit conversions, estimates, & critical analysis of data. In spring, we chose readings that emphasized how the same number can be used to present different answers to the same problem (e.g. global warming)
2002-03	What's Your Question?	CORE	SPBC			Major	Quantitative reasoning as included as part of introduction to statistics and quantitative research design. Concepts of normal distribution, mean , median, mode, and range were covered as well as experimental and quasi-experimental design.
2003-04	Physicist's World	CTL				Major	Through the role of mathematics in physical science; through the nature of mathematical proofs; and through the use of the Pythagorean theory as a unifying idea in mathematical physics.
2001-02	Social Work Practice	CTL				Major	Focus on measurement and evaluation of program implementation
2004-05	Acting and Directing: Queer Theory and Practice	EA				Major	Training system that about units, distance, space.
2002-03	Energy: Working Towards a Sustainable Future	ES				Major	Quantitative reasoning was used in both understanding the science and the economics of energy. This occurred both in the classroom and in 5 days of fieldwork.
2003-04	Exploring Biogeochemistry	ES				Major	Analysis of nitrogen compounds in water (lab) required daily quantitative reasoning skills. Weekly problems also emphasized quantitative reasoning.

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2005-06	Field Ecology	ES				Major	There were two major assignments in this program--a group project and individual project. In both cases, students tested hypotheses by collecting data in the field and analyzing their data set using a variety of statistical tests, including correlation analysis, regression, ANOVA, chi-square, and ordination methods.
2001-02	Field Ecology: Research Methods	ES				Major	Lab exercises in statistics and ecological data analysis on group projects
2002-03	Freshwater Ecology	ES				Major	Very well.
2003-04	Hydrology	ES				Major	Science was a major focus of this program. Students did several quantitative problem sets each week that described hydrologic processes (statistics and algebra). Quantitative methods were discussed in lecture and described in the text. Students worked with both calculators and Excel to solve these math problems.
2005-06	Hydrology	ES				Major	Science was a major focus of this program. Students did several quantitative problem sets each week that described hydrologic processes (statistics and algebra). Quantitative methods were discussed in lecture and described in the text. Students worked with both calculators and Excel to solve these math problems.
2004-05	Introduction to Environmental Chemistry	ES				Major	chemistry is inherently quantitative.
2004-05	Introduction to Environmental Chemistry: The Atmosphere	ES				Major	Chemistry
2002-03	Introduction to Environmental Studies	ES				Major	Unit conversions and calculations for chemistry. It worked well.
2003-04	Introduction to Environmental Studies	ES				Major	We did statistical analysis of the vegetation data collected by the students.
2005-06	Introduction to Environmental Studies: Land	ES				Major	Every assignment involved data and quantifying using statistical measures learned in statistics coursework. Many students used quantitative reasoning in final individual research projects, group projects, and in regular class assignments. Often assignments had either statistical components or brainstorming what the numbers mean (interpretation).

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2001-02	Marine Life	ES				Major	Statistics, computer software to display, organize, analyze data.
2002-03	Marine Life	ES				Major	Students used statistical analysis and field methods.
2004-05	Marine Life	ES				Major	Labs/Lectures/Seminars/Research Projects
2001-02	Rainforest Research	ES				Major	Students carried out statistical analysis of field data. Basic descriptive statistics; simple hypothesis testing.
2003-04	Rainforest Research	ES				Major	Statistical hypothesis testing part of all projects
2003-04	Symbiosis	ES				Major	Mostly in the form of balancing complex chemical equations.
2001-02	Temperate Rainforests	ES				Major	They completed problem sets, and QR was incorporated into labs and research.
2003-04	Temperate Rainforests	ES				Major	no comment
2005-06	Temperate Rainforests	ES				Major	Statistical labs and quantitative analysis of data; reading scientific papers and interpreting graphical presentation of data.
2001-02	Tropical Rainforests	ES				Major	Workshop on descriptive statistics and statistical inference; fieldtrip projects involving statistical inference.
2003-04	Tropical Rainforests	ES				Major	- 4-unit statistics component; Labs were all quantitatively oriented
2005-06	Tropical Rainforests; Study Abroad Winter: Costa Rica	ES				Major	Statistics module incorporated in program.
2005-06	Water	ES				Major	Both of the sciences need quantitative work modeling, lab calculations in particular. Statistics for 4 credits each quarter.
2005-06	Watershed Ecology:From Rivers to Ridges	ES				Major	Statistical analyses for projects.
2004-05	Arts, Nature, Pattern	EWS	EA	SI		Major	Students did research of educational software, quantitatively evaluated effects of software on different age groups.
2001-02	Chemicals, Public Policy, and You	EWS	SI	SPBC		Major	Labs, calculations, and more calculations.
2003-04	Chronic Illness, Disability, and Deafness	EWS	SPBC	CTL		Major	In spring quarter, we spent several weeks on accurate and critical reading of charts, tables, and graphs.

Academic Year	Program Name	Planning Group	Detail1	Detail 2	Detail 3	QR emphasis	How was Quantitative Reasoning included in your program?
2001-02	Class in the U.S.	EWS	SPBC			Major	Every session of the class had statistical analysis; statistical readings and homework were assigned; students conducted &analyzed a survey; & individual statistical analysis projects were part of the final assignment. This is the 1st time I've tried to do QR as a major program component. If anyone would like to discuss it in more detail, I'd be glad to.
2002-03	Community Information Services	EWS	SI			Major	If computer programming is "quantitative reasoning", then yes. It worked well. It was key, not an addition.
2001-02	Culture as History	EWS	CTL			Major	Spent a major amount of class working on mathematical analysis. Students worked on scale, size, and architectural relationships. They learned linear programming & Game Theory & applied it to framing questions, analysis of war, & urban/suburban planning. Worked on this, but our students, in general, came with only basic math skills, so much class time was spent teaching them what they needed to make connections - less time on the actual connections.
2003-04	Doing Science	EWS	SI			Major	Taught descriptive/influential statistics.
2002-03	Foundations of Computing	EWS	SI			Major	Algorithm development was a major emphasis in the class; it was successful.
2002-03	He Said, She Said	EWS	SPBC			Major	To teach critical analysis of popular focused research projects, for example, web-based self-test systems and self-evaluation health books (self help books). Students also were taught critical analysis of mathematics as used by these systems.
2005-06	International Policy and Business: Europe	EWS	SPBC			Major	Calculating international market and currency trends and preparing small-business spread sheets.
2005-06	Order and Chaos: Making and Breaking Rules in Science and the Arts	EWS	EA	SI		Major	Math, quantum mechanics, probability.
2003-04	Physics, Visual Perception, and Flash	EWS	SI			Major	As already mentioned, students discussed problems in physics related to light and motion. Vectors, calculus, mathematical notation, and computer programming were each covered briefly. Students were encouraged to think through physics problems rather than just using formulas, but algebraic manipulation was used over and over.

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2005-06	Public Health in the United States	EWS	SPBC			Major	About half our work focused on outbreak investigation, which is largely quantitative reasoning. Students also had to include a quantitative component in their final projects, and read and interpret data in tables and charts throughout the quarter.
2001-02	Quantitative Methods for Effective Management	EWS	SPBC			Major	Using quantitative information for problem solving.
2004-05	Quantitative Methods for Effective Management	EWS	SPBC			Major	Basis of the program… used quantitative methods to analyze and solve organizational problems.
2002-03	Representing the World	EWS	SI	CTL		Major	Aside from traditional math, students learned map-making skills and how to apply math and geometrical concepts to solving a variety of practical problems. There was lots of hands-on measuring and calculating.
2004-05	Science Writing	EWS	SI	CTL		Major	Statistics of probability, statistical inference.
2005-06	Seeing is Knowing: From Data to Images and Back	EWS	SI			Major	Especially when analyzing graphs and visual displays of quantitative information, we used quantitative reasoning skills. Also when working through statistical problems.
2004-05	Sex, Gender and Evolution	EWS	SI	SPBC		Major	Key concepts included random mutations as the basis for evolution, evolution as a change in allele frequencies in a population, and Mendelian genetics. Basic statistical reasoning was critical as well, especially the concept of probability and frequency distributions, the role of uncertainty in hypothesis testing, sampling theory, and variation within and among groups. We also used a simple game theory model (Prisoner's dilemma) to structure an experiential workshop that tested hypotheses about differences in aggression and cooperation between males and females. We also did a simulation of evolution by natural selection in which students drew cards from a standard deck of playing cards, in order to simulate the effects of random mutation on reproductive rate and survival and, therefore, fitness.

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2001-02	Tough Choices, Clear Thinking	EWS	CTL			Major	Students studied inductive logic, primarily decision theory, and probability theory. Some hated this math stuff; most came around to understand it by the end, but one thing I want to work on is how to start the topic-there are ways of helping students begin to think about inductive logic & use QR, before ever cracking a book. I want to improve.
2004-05	True, But Not Obvious	EWS	SI	CTL		Major	Again, the themes of special relativity and geometry including logical proof and the use of data as evidence.
2003-04	Understanding Your Food	EWS	SI			Major	Dietary intake analysis and calculations related to chemistry.
2002-03	Weird Science	EWS	SI			Major	It worked well. We used Excel throughout to statistically analyze data and make graphical representations of information. We measured a variety of physical quantities and made specific predictions based on quantitative models.
2005-06	What's Cookin': The Science of Food	EWS	SI			Major	As part of Chemistry--students needed to complete/work through many equations. Nutritional databases--to calculate diet analyses of various nutrients.
2004-05	New Tools for Community Transformation	EWS (GRH)	GRH			Major	We looked beyond the results of data and examined the meaning of statistical info, how quantitative superstitions arise and are propagated.
2002-03	Body, Mind, Soul	IA	CTL	EA	SPBC	Major	We taught statistics and used excel. Students had to learn to think in terms of numbers.
2001-02	Drawing from the Sea	IA	ES	EA		Major	Lab assignments (organize, analyze data); drawing assignments (perspective, ratios)
2001-02	Eco-Design in Real World	IA	SI	EA		Major	Through workshops, assignments, environmental science, and building science
2005-06	Emerging Order: What to Make of It?	IA	SI	EA		Major	Workshops and computer labs in math and physics.
2003-04	Forensics: The Science of Crime Scene Investigation	IA	SI	SPBC		Major	All of the labs and workshops were quantitative in nature. Students collected data that was subsequently analyzed by mathematical modeling, graphing.
2003-04	Health and Human Development	IA	SPBC	SI		Major	Via descriptive and inferential statistics and applied use of statistics as data analysis for group empirical research.
2005-06	Indigenous Peoples and Ecological Change	IA	ES	NAWIP		Major	Various calculations using Excel, etc. Mostly, working up results of lab experiments and field observations.
2005-06	Leadership on the Wild Side	IA	SPBC	ES		Major	Navigation and piloting-- basic geometry, algebra and quantitative reasoning.

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2001-02	Physicist's World	IA	CTL	SI		Major	As part of the material on science; As separate lectures and workshops on math and logic and computation
2005-06	Physicist's World	IA	CTL	SI		Major	Lectures, Readings, Workshops.
2002-03	Respect: Process of Universal Humanity	IA	SPBC			Major	Through the workshops on QR that Raul gave. For example, he would tell them to draw a circle, draw a line from the center out, and find the measurements and radius to make the experience hands on rather than memorization. He challenged them to figure out pi themselves as well.
2004-05	Science of Fat	IA	ES	SI		Major	Chemistry and math
2001-02	Science of Mind	IA	SI	SPBC		Major	Two-qtr component in descriptive and inferential statistics with an emphasis on inferential techniques typically used in psychological experimentation. Quantitative reasoning was a major focus of program that was addressed in lecture, workshop, and project contexts.
2002-03	Algebra to Algorithms	SI				Major	I distinguish QR from mathematics as follows: math is essentially symbol manipulation, and the study of relationships. QR is the ability to cast real world problems into the appropriate mathematical symbology; and the inverse, i.e. interpreting a mathematical or statistical result. We did both of these.
2003-04	Algebra to Algorithms	SI				Major	Pre-calc math, intro. Computer science and programming, problem solving
2004-05	Algebra to Algorithms	SI				Major	We studied algebra-based mathematical modeling. We also studied problem solving, which frequently involved quantitative reasoning.
2005-06	Algebra to Algorithms: An Introduction to Mathematics for Science and Computing	SI				Major	Algebra.
2002-03	Astronomy and Cosmologies	SI				Major	No Comment
2004-05	Astronomy and Cosmologies	SI				Major	see 2
2003-04	Astronomy and the Cosmologies	SI				Major	no comment
2005-06	Atoms, Molecules and Reactions	SI				Major	We used quantitative reasoning skills throughout all of our scientific work: algebra, calculus, differential equations, graph preparation and analysis, statistics, probability distributions, etc.

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2001-02	Atoms, Molecules, and Research	SI				Major	Weekly problem-solving to reinforce topics covered in class, quantitative labs & data analysis
2003-04	Atoms, Molecules, and Research	SI				Major	Cannot do "quantitative" chemistry without quantitative reasoning.
2001-02	Concepts of Computing	SI				Major	Understanding logic, Boolean algebra, applied algebra
2001-02	Data to Information	SI				Major	Computer science is a combination of science and applied math, thus it would quite naturally be included.
2003-04	Data to Information	SI				Major	Discrete mathematics component each quarter.
2005-06	Data to Information	SI				Major	Mathematics and reasoning about algorithms were part of the content.
2004-05	Energy Systems	SI				Major	Calculus-based physics and energy studies, including derivations, data analysis, and graphical representation.
2002-03	Environmental Analysis	SI				Major	Statistics, thermodynamics, hydrology, chemistry, analytical laboratory, GIS programming were all required and used quantitative reasoning skills.
2004-05	Environmental Analysis	SI				Major	Size guesstimates, coordinate systems for mapping, chemical stoichiometry, field measurements of alkalinity, temperature and conductivity, lab measurements of alkalinity, temperature and conductivity, lab measurements of cation and anion concentrations. Method detection limits.
2001-02	Introduction to Natural Science	SI				Major	Integral part all aspects of the program. We did Algebra & Trigonometry , and used math to solve problems in all sciences. Graphical & computer analysis of lab results emphasized, & solving real world problems using QR (caloric/nutritional content of food, amount of pollution, population growth modeling. Another very successful aspect of our program.
2002-03	Introduction to Natural Science	SI				Major	You cannot teach science without quantitative reasoning. It was an essential part of the program. We showed students how certain concepts of math are used in all areas of science.
2004-05	Introduction to Natural Science	SI				Major	Every component of the program included a quantitative aspect.
2005-06	Introduction to Natural Science	SI				Major	Laboratory science requires quantitative reasoning: problem solving in chemistry, biology, math and physics.
2004-05	Mathematical Origins of Life	SI				Major	It was all quantitative reasoning.
2005-06	Mathematical Systems	SI				Major	Well, it was a math program.

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2003-04	Mathematics in History and Science	SI				Major	The entire content of the program was mathematics and the history of science.
2005-06	Matter and Minerals	SI				Major	
2001-02	Matter and Motion	SI				Major	Physics, calculus, chemistry every day, plus statistics and laboratory work
2004-05	Methods of Applied Mathematics	SI				Major	It's all quantitative reasoning
2003-04	Modeling Motion	SI				Major	The course was QR.
2004-05	Molecule to Corporation	SI				Major	Everyday analysis of lab data, homework. Stock market analysis.
2001-02	Molecule to Organism	SI				Major	Incorporated into almost every aspect of the program. Mathematics is an integral part of all science.
2002-03	Molecule to Organism	SI				Major	Again, it is rather self-explanatory, but in every aspect of the program, students were engaged in QR – be it making up solutions for a lab or calculating resting membrane potentials of cells.
2003-04	Molecule to Organism	SI				Major	Math was used to predict and analyze experimental data and was used throughout class and lab. Students were required to develop strong skills and proficiency in logs, algebra, unit conversions, significant figures, probability, graphing, and in carrying out Ferme math.
2004-05	Molecule to Organism	SI				Major	Probability, statistics, basic math skills (including algebra) were used throughout the program in both workshop and lab to deal with questions in genetics, spectroscopy, kinetics, and thermodynamics.
2005-06	Molecule to Organism	SI				Major	Mostly within the context of lab work. Students were required to prepare all of their reagents, solutions, etc, all needing calculations first. Students also collected, analyzed, tabulated and graphed data sets from lab.
2002-03	Physical Systems	SI				Major	No Comment
2003-04	Physics of Astronomy	SI				Major	no comment
2005-06	Physics of Astronomy	SI				Major	Astronomy, Cosmology, Astrophysics, Physics, Calculus, vectors, differential equations.
2002-03	Science Seminar	SI				Major	All our readings were about science and math, mostly qualitative. Easy way to introduce the topics to students without background. Not enough rigor for more curious students. Motivated deeper digging.

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2003-04	Student Originated Software	SI				Major	Analysis of stakeholders' problems and prioritization of proposed solutions.
2005-06	Symmetry in Nature	SI				Major	
2003-04	Topics in Advanced Mathematics	SI				Major	Being primarily a mathematics program, we did a lot of quantitative reasoning.
2003-04	Transforming the Globe	SI				Major	It is a major component of chemistry, physics and math.
2004-05	Water: The Universal Solvent	SI				Major	As described in 1. Everyday and in every class. Students received credit in mathematics from the program. For example, how much water is flowing down Waddell Creek today? The class took in field measurements that they then used to calculate the answer.
2001-02	180 Degrees: Advanced Study of Psychology	SPBC				Major	Research project - 2 qtrs long - designed, collected, and analyzed data.
2004-05	A Few Good Managers Wanted	SPBC				Major	Financial management
2003-04	Advanced Management Topics	SPBC				Major	In the financial management portion and in the case studies.
2004-05	Business in Action	SPBC				Major	Much of the applied work involved reading and interpreting quantitative financial information and applying it to business decisions.
2001-02	Entrepreneurship and Organization	SPBC				Major	We studied budgeting for nonprofit & profit-making organizations; basics of finance and accounting needed to understand how to organize & monitor profit-making firms; completed assignments in Fall & Spring involving finance
2004-05	Latin America in a Global Free Market	SPBC				Major	see my program description
2005-06	Managing a Maritime Business	SPBC				Major	Financial analysis workshops and case studies.
2001-02	Maritime Entrepreneurship	SPBC				Major	Coastal navigation problems involving nautical charts & speed, distance, time, direction vectors. Design & preparation of financial statements for business ventures (i.e. income statements, balance sheets, & cash flow statements.) A few had difficulty. Others took a lot of time learning the skills
2002-03	Organizations, Entrepreneurship, and Management	SPBC				Major	It was a challenge for many students, and I believe all come away with enhanced skills.

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2003-04	Political Economy and Social Movements	SPBC				Major	Did lots of graph work around poverty issues. Making people look closer at graphs, charts, and tables to see how people gather information. And also in doing so, to decide for themselves whether or not they agree with this information if they feel those represented are done in an accurate truthful way.
2002-03	Taking the Pulse	SPBC				Major	Statistics taught every Wednesday morning. Great.
2004-05	Working the Waters: Leadership Under Sail	SPBC				Major	I see this the same as Math. What is the difference?
2002-03	Seven Continents, Eleven Blocks, One Community	TAC				Major	Two courses were offered that featured quantitative reasoning prominently: (1) a statistics and biology course and (2) a course in environmental policy and law where students had to do quantitative analysis. Both worked very well.
2005-06	Tribal Reservation-Based/Community Determined: Nisqually	TRI				Major	Quantitative reasoning is taught across the curriculum.
2004-05	Tribal: Reservation-Based/Community Determined: Nisqually	TRI				Major	see previous
2002-03	Centering	CORE	EA	SI		Minor	In science labs, quantitative reasoning was an important factor to the learning.
2001-02	Children's Literature and Lives	CORE	CTL			Minor	Some lecture time- discussed correlations & causation, limits of self-reporting in research, statistical significance and effect sizes, meaning of standard deviation as a measure of variance, and previewed a couple of graphs in the readings. We're doing a little informal evaluation we'll send you.
2002-03	Citizen Artist	CORE	CTL			Minor	Very practical applications – determining square footage, making scale models, calculating material needs, writings budgets. It was very effective, because the students didn't really know they were doing math!
2005-06	Consuming Utopia: From Wilderness to Wal-Mart	CORE	CTL			Minor	Very minor emphasis--used only when considering the consequences of certain environmental issues, such as estimating river flow (cfs) before and after dam construction, etc.
2004-05	Designing Languages	CORE	CTL	SI		Minor	The problem solving necessary to learn how to use, modify and compose computer programs.

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2003-04	Fishes, Frogs, and Forests	CORE	ES			Minor	Basic statistics were taught; use of graphs was frequent in lectures on ecology and evolution; and two workshops on "quantitative reasoning for the informed citizen" were conducted, using, in part, readings from Paulos' Innumeracy.
2004-05	Geology and Art: Getting Grounded	CORE	ES	EA		Minor	A few assignments and workshops that involved basic math and unit conversions.
2004-05	Interrogating American Cultures Through the Arts	CORE	EA			Minor	yes - check the sciences and the math
2003-04	Labyrinths	CORE	EA			Minor	Our reading dealt with mathematical puzzles, the geometry of the labyrinth, and a bit of topology.
2001-02	Natural and Unnatural Histories	CORE	ES			Minor	As part of the economics portion of the program the students learned graph making and graph reading skills. They also did some work with metric conversions as part of an assignment comparing the market price of local seafood. The students learned a lot about reading graphs and what makes a good graph. The metric conversion exercise, however, did not fit as smoothly into the overall assignment as I had hoped.
2001-02	Ocean Life & Environmental Policy	CORE	ES			Minor	Excel, basic biological statistics, metric system
2003-04	Our Place in Nature	CORE	CTL			Minor	Primarily through means of deciphering the merit of economic arguments concerning the "value" of "natural resources."
2002-03	So You Want to Be a Teacher	CORE	SPBC			Minor	Comparative demographics and visual representations; data collection and comparison concerning school funding and distribution in WA public schools. It worked fine – we had intended to do more but…
2004-05	Waste and Want	CORE	SPBC			Minor	Reading data
2004-05	What are Children For?	CORE	CTL	SPBC		Minor	answered above
2001-02	Wildlife, Habitat, Landscape	CORE	ES			Minor	Several computer labs in Excel, GIS, & landscape modeling required quantitative analysis of data sets. Group projects also required analyses of data collected by students & modeling of that data to compare habitat suitability indices.

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2005-06	A Novel Idea	CTL				Minor	Quantitative problems involving measurement arise in novel-writing all the time, particularly in science fiction. We had several science fiction writers in the program who presented us with numerous quantitative problems requiring group brainstorming and individual research.
2003-04	Africa and the Black Atlantic World	CTL				Minor	The readings and lectures referred to statistics about slavery, percentages of Blacks living in prison or in poverty, the economic conditions of Hip-Hop artists and their impact on the African-American community.
2002-03	American City Since 1945	CTL				Minor	Two workshops on QR to help students critique QR in program readings and include QR in their papers – it worked splendidly.
2003-04	Ancient Stories / Modern Lives	CTL				Minor	We worked on logic in reading Socrates which I think requires quantitative reasoning skills even if not numbers.
2001-02	Antebellum	CTL				Minor	Some of the historical studies we read used quantitative analysis; I also included some in my lectures on lynching. Students liked the graphs & statistics in terms of how they represented history.
2003-04	Author, Author	CTL				Minor	Calculating book content through the spatial reasoning of layout and design to produce a physical book at minimal cost. Letterpresses and computer.
2002-03	Bilingual Education and Teaching	CTL				Minor	Very minor emphasis. Used to read census data, statistics, and comparative graphs. There are huge differences in the students ability to apply quantitative reasoning.
2003-04	Bilingual Education in Teaching	CTL				Minor	Some quantitative reasoning was needed to interpret properly some conclusions from research papers and case studies (they were used as primary resources for the program).
2001-02	Bodies of Contention	CTL				Minor	Some students chose articles related to the debates on pornography that included statistical analysis (especially causality vs. correlation as related to pornography and violence). Again, only a few students explored QR, but it greatly enriched the debates.

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2005-06	Central America: Poetry and Politics	CTL				Minor	Some minor work with statistics on the countries of Central America. Bilingual literary anthology: students worked in groups of 3 to interview Central Americans in the region, transcribed and translated the interviews to English, edited and copyedited them into testimonio form, used Adobe InDesign to design and lay out the book, which was distributed to local libraries and Latino community centers.
2001-02	Changing Minds, Changing Course	CTL				Minor	Some quantitative work introducing statistics in a workshop & through interpreting core study data
2004-05	Slavery in Africa and the Americas	CTL				Minor	Many of our required texts included extensive discussion of the economics, health and physiological dimensions, and the demographics of the slave trade and slavery, including extensive statistical analyses.
2001-02	Study of Violence	CTL				Minor	One text was heavily statistical in its examination of youth violence; the process of "measurement" was discussed in 2 texts; and statistics were talked about frequently by faculty. When quantitative reasoning is discussed as a problem of 'measurement' (and definition) students seem more responsive and receptive.
2001-02	African Arts	EA				Minor	We did a workshop with Louis Nadelson dealing with the number of slaves imported/exported. Spent a great deal of time planning how to integrate this into program and have it make sense. It did so incredibly well.
2004-05	American Eye: A History of America in Photographs and Fiction	EA				Minor	In order to present their photos professionally mounted, students used math to figure where to place their images precisely on mat-board or where to cut openings in a mat board to make a window mat.
2003-04	Art in the Americas	EA				Minor	Students had to use some math to design some projects, but received no math credits.
2005-06	Experimental Puppet Theater, Object Theater and Dance	EA				Minor	Students were required to keep budgets for art projects, were required to present a grant request for which they had to prepare a budget, and to award the grants as a committee which reviewed budgets as part of the process. Students converted 2-D scale sketches into actual 3-D puppets and stages.

Academic Year	Program Name	Planning Group	Detail1	Detail 2	Detail 3	QR emphasis	How was Quantitative Reasoning included in your program?
2001-02	Experiments in Performance, Music, & Puppet	EA				Minor	Students explored the relationship between mathematics & music; Also relationships between budgets and art projects; Student projects used geometry in creating 3-D puppets.
2001-02	Foundations of Visual Arts	EA				Minor	We had workshops on quantitative reasoning for artists, including proportional reasoning, linear perspective, and tessellation. We learned that careful preparation of faculty along with the Quantitative Reasoning center is crucial.
2002-03	Foundations of Visual Arts	EA				Minor	In the design of patterns for fiber arts, such as their weaving projects and other areas of the program where measurements and calculations were necessary to the specific project.
2003-04	Foundations of Visual Arts	EA				Minor	Several students needed to work out problems in geometry in order to work out designs for various shapes when welding steel rood into sculptural forms. All students had to write a ten-page research paper on a contemporary sculptor or new genre artist.
2003-04	Imagining Books	EA				Minor	There is some quantitative reasoning (not mathematics) in the various artistic processes, particularly in book design and binding, and in letterpress printing.
2003-04	Mediaworks	EA				Minor	Students had to produce an Excel budget for spring quarter projects.
2005-06	Mediaworks	EA				Minor	Proposal development included budget preparation; aspects of 16mm filmmaking require some basic quantitative skills; study of lens, optics, physics of the moving image; technological studies.
2001-02	Mediaworks: Experiments Light & Sound	EA				Minor	Students had to develop film budgets for their spring qtr projects using Excel, including "institutional" vs. "real-world" costs. Also, aspects of post-production, file management, film optics, etc. involved quantitative skills. It was necessary for the successful completion of spring projects; the budgets were real & they were applied to their work
2002-03	Music in Culture	EA				Minor	One credit was awarded per quarter. Studies included lots of geographic and demographic facts and figures. Research projects had to include graphs. Music includes a good number of mathematical aspects.

Academic Year	Program Name	Planning Group	Detail1	Detail 2	Detail 3	QR emphasis	How was Quantitative Reasoning included in your program?
2005-06	Music in Culture	EA				Minor	Quantitative Methods in music and quantitative component in individual research projects and presentations: demographics, tables, graphs, timelines; some computation. Some explorations of critical thinking within research writing guidelines.
2002-03	Puppet and Object Theater	EA				Minor	Design and budgeting for a grant proposal that was awarded to the students for design of an experimental puppet booth.
2004-05	Puppet and Object Theater	EA				Minor	Students were required to apply for a grant preparing a detailed budget. FACULTY STUDENT RATIO TOO HIGH!
2001-02	Seeing the Light	EA				Minor	In learning to cut mats for their photos, they needed to do some basic math to determine how to center their photos on mat board & how to exactly cut window-mats. Also needed basic math in mixing chemistry.
2004-05	Seeing the Light	EA				Minor	See answers to Science and Math question.
2004-05	Seven Generations: 200 Years of Japanese and American Art	EA				Minor	Students made up compounds by mixing various chemicals. This required that they calculate weights and measures of the chemicals in order to figure out how large a batch to make.
2002-03	SOS: Media	EA				Minor	Math – quantitative work with the creation of budgets, grant proposals, and business plans.
2003-04	Working Small	EA				Minor	Design, measurement, scale
2002-03	Animal Behavior	ES				Minor	Statistics workshops throughout the quarter, with statistical analysis required for student-generated data at the end of their individual projects. It could have worked better; I'm planning changes for next year.
2004-05	Animal Behavior	ES				Minor	Again--two hours a week of statistics; weekly statistics homework; plus students were expected to formulate research design, collect data, and analyze those data using appropriate scientific and statistical methods and tests. In lecture, we also discussed the math involved in the genetic system called haplodiploidy, in which females and males are related to different degrees to each of their relatives. We derived the relationships using basic algebra in class.

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2005-06	Disturbance Ecology	ES				Minor	There were several spatial analyses done in GIS that required basic quantitative reasoning.
2003-04	Ecological Agriculture	ES				Minor	Calculations in some exercises. Upper division – extensive algebraic calculations.
2005-06	Ecology of Harmful Algal Blooms	ES				Minor	Reading scientific papers. Data analysis from paper, lab and research.
2004-05	Forests in Space and Time	ES				Minor	Quantitation of nutrient flows and pools in nutrient cycles.
2003-04	Fungal Kingdom	ES				Minor	We did some quantitative work in population growth of microorganisms.
2001-02	Introduction to Environmental Chemistry (half-time)	ES				Minor	Solving equations to predict environmental trends.
2004-05	Introduction to Environmental Studies	ES				Minor	Statistics
2001-02	Introduction to Environmental Studies: Trees, Timber, Trade	ES				Minor	Used while working on quantitative ecology and economic problems.
2001-02	On Shaky Ground: Geologic Hazards	ES				Minor	Homework problem sets, labs, problems done in class. Wide range of math ability made doing more advanced algebra difficult.
2001-02	Plant Ecology and Taxonomy	ES				Minor	Ordination with vegetation data collected in the field.
2003-04	Practice of Sustainable Agriculture	ES				Minor	A few exercises
2002-03	Rules of Nature/Rules of Life	ES				Minor	Analysis of field exercise with help from the CAL and workshops from the QRC.
2001-02	Snow Ecology	ES				Minor	Quantitative problems on snow physics and ecology.
2005-06	Symbiosis	ES				Minor	Some labs required balancing equations, etc.
2002-03	Trees and Humans	ES				Minor	We did a few labs on statistical analysis of data for our moss experiment.
2005-06	Vertebrate Evolution	ES				Minor	Building and analyzing evolutionary trees, while not classical quantitative reasoning, requires careful, rigorous, logical thought and ability to interpret both indented hierarchical lists and branching diagrams with regard to the historical hypotheses they represent.
2002-03	Working in Development	ES				Minor	We analyzed validity and source of data/tables presented from the first but did not generate our own data.

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2002-03	Arts and the Child	EWS	SPBC	EA		Minor	Students learned how to use QR in science lessons for elementary grades. It worked very well.
2001-02	Authentic Self	EWS	SPBC	EA		Minor	Through critical thinking on the part of students.
2004-05	Education, Values and Society	EWS	SPBC	CTL		Minor	We discussed the quantitative factors on soc-sci research.
2002-03	Ethics and Difference	EWS	CTL	SPBC		Minor	Students read and interpreted graphs, charts, and tables of statistics; students also learned about technical concepts concerning epidemiology.
2003-04	Finding Your Voice: Advocacy and Change	EWS	EA	CTL		Minor	Students were required to include quantitative data in their political speeches, and to research the sources of those numbers. The QR center staff gave a workshop to the class to help the students find and understand statistics.
2003-04	Government and the Economy	EWS	GRH	SPBC		Minor	Economic graphs, charts, equations
2005-06	Ideas Made Manifest: Art and Philosophy in the Middle Ages	EWS	EA	CTL		Minor	The art projects students did included basic geometry. They used a protractor and compass and reviewed their function in measuring and creating complex compositions. Students also learned about symbolic geometry, which dominated medieval thinking as well as medieval architectural design.
2004-05	Justice at Work	EWS	SPBC			Minor	Very minor emphasis, basically upon comprehension of economic statistics used in legal and sociological literature.
2002-03	Leadership and the Big Picture	EWS	GRH	SPBC		Minor	For 12-credit students – yes; for 8-credit students – no.
2001-02	Management in Contemporary Organizations	EWS	SPBC			Minor	Measuring of organizations' actions
2004-05	Management Skills for Effective Management	EWS	SPBC			Minor	Had to figure decisions based on numerical analysis.
2004-05	Market, Forum and Village	EWS	CTL	SPBC		Minor	WE did a "Prisoner's Dilemma" exercise in game theory.
2004-05	Politics and the Media	EWS	SPBC			Minor	Quantitative samples are drawn to extrapolate to the population as a whole from small samples.
2003-04	Positive Psychology	EWS	SPBC			Minor	Evaluation of test development, psychometrics.
2004-05	Positive Psychology	EWS	SPBC			Minor	Students were encouraged to examine the research methodology and findings of conflicting social science. They also participated in research as a class, by taking pre- and post- program tests on positive psychology concepts.

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2001-02	Promise of Health	EWS	SPBC			Minor	Statistics and modeling to arrive at health disparities; Guest Speaker from Dept of Health used epidemiological format to advise students of the depth of the issue of racial disparities as well as poverty.
2005-06	Religion and Society	EWS	CTL	SPBC		Minor	Criticalyl evaluated statistical information.
2001-02	Revolutions at Work	EWS	SPBC			Minor	We had workshops on various topics, like consumer price indexing, averages, medians and modes, and currency exchange in a global market. Students used economic data in their research papers and magazine articles. It would have been good to have had time to do more, but without QR as a major part of the curriculum, we did fairly well.
2003-04	Silk Roads: China, the Middle East, and the New World	EWS	SPBC	CTL		Minor	Char led a QR workshop on critical thinking about the use of numbers in assigned texts (The History of Money). Students worked in small groups to identify a passage from the book that included QR, then do library and Internet research to track down the original source of the numbers used by the author, their opinion on the accuracy, how useful the numbers were in helping them understand the author's point, and if not helpful, how QR could have been used more effectively. For the students' travel writing article, which was their major writing project for spring quarter, they needed to come up with a quantitative question to address in their article, and use QR in a meaningful way to address that question in their papers; Simons lecture Islamic math and science and its relationship to the European Renaissance.
2001-02	SOS: Child and Human Development	EWS	SPBC			Minor	Students created rubrics to compare different schools and used QR in a modest way. Quantitative/Qualitative reasoning are important tools of research, and all students should learn them in college.
2003-04	Sport and Society	EWS	SPBC			Minor	Students analyzed and did presentations and wrote a paper of interpretation of our survey results. Did statistics and survey where students collected data from faculty, staff, students, and intercollegiate athletics at Evergreen and did an analysis on this.

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2004-05	Stage and Screen	EWS	EA			Minor	Students did research projects that involved statistical analysis of various aspects of theatre, television, film and video games -- demographics, audience surveys, revenue and other topics.
2002-03	Suburban Nation	EWS	ES			Minor	Workshops on locating and graphing census data; project group assignments included finding and interpreting census data for the community they were studying. One of our books had a great deal of statistical analysis of wealth in the United States, particularly the wealth gap between blacks and whites. To read it well, students had to understand inflation and growth rates too. We did a workshop on using the consumer price index to interpret economic figures.
2005-06	Systems Theory for Business and Organizations	EWS	SPBC			Minor	Used symbolic reasoning to examine and create representations of wholeness, and we mapped system dynamics.
2001-02	Transcending Boundaries	EWS	SPBC			Minor	Analysis of income, employment, etc. of minority groups in New Mexico relevant to dominant culture
2002-03	Where Roads Meet	EWS	CTL			Minor	Two quantitative reasoning workshops, one on critical analysis of data presented in the media, the other on the relationship between Islamic art and math. Very successfully.
2004-05	America in the 20th Century	IA	CTL	SPBC		Minor	Economic Elements
2005-06	Business and Society: Put Your Money Where Your Mouth Is	IA	SPBC	CTL		Minor	Economics.
2001-02	Christian Roots	IA	ES	EA		Minor	Very limited use. Seminar books involved more history, but some quantitative data; Had a seminar involving how to use QR in respect to Renaissance Architecture
2002-03	Crime in America	IA	SPBC	CTL		Minor	We included some materials on crime statistics and accounting (corporate crime). We probably didn't include enough of either to give students a real appreciation for the topics.
2003-04	Dance, Creativity, and Culture	IA	EA	SPBC		Minor	Technical theatre
2005-06	Drawing from the Sea	IA	ES	EA		Minor	Some labs and exams included math problems. The importance of quantitation [measuring] in science was stressed in lectures and examples were provided.
2004-05	Evolution of the Book	IA	CTL	NAWIP		Minor	See 2B above

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2001-02	Filming Fictions	IA	CTL	EA		Minor	Students had to compute the digital volume of their scripts in order to make films that would fit on a 2-1/2 minute compact disc.
2004-05	Forensics and Mystery Writing	IA	SI	CTL		Minor	Students created graphical representation of time-of-death data and predicted victim time-of-death. Discussions of best-fit line selection, the importance of labels, the significance of axes selection and graphical interpretation followed using student examples. We also explored the significance and consequence of terminology choice when discussing a DNA match.
2001-02	Health & Human Development	IA	SPBC	CTL		Minor	Nutritional assessments (percentages, graphing); interpreting research journal statistics. Some students resisted this component, but it was a useful and important tool.
2005-06	Imaging the Body	IA	EA	ES		Minor	Nutrition project which required students to track their nutritional intake over 4 weeks and analyze their intake of calories, protein, carbohydrates, and fat
2005-06	Information Landscapes: Mapping the Invisible	IA	CTL	SI		Minor	Learning to use software applications.
2003-04	Islands	IA	EA	CTL		Minor	We offered lectures on island biodiversity, evolutionary biology on islands, botanical identification and island botany. Students used a bit of math in PhotoShop.
2005-06	Jefferson's American West	IA	CTL	ES		Minor	Historical statistics.
2001-02	Local Knowledge	IA	EA	ES		Minor	Small groups studied survey construction and selected statistics
2001-02	Marking Time	IA	CTL	EA		Minor	Sacred Geometry (text); animation (quantities of time); Laban Movement Theory (body geometrics and spatial design)
2005-06	Memories, Dreams, Beliefs: Personal and Cultural Explorations of the Dynamic Psyche	IA	SPBC	EA	SI	Minor	Laban theory (spatial archetypes, geometry), Research Psychopathology, Statistics (in Abnormal Psychology), GSM IV.
2005-06	Movement and Resistance	IA	CTL	EA		Minor	Very minor--some calculations in physics workshop. Algebra problems in reading, Radical Equations (Moses).
2001-02	Order of Things	IA	CTL	EA		Minor	Calculating surface area & volume
2003-04	Performing Gender	IA	SPBC	EA		Minor	Basic information of percentages and averages in sociology workshop.

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2002-03	Power and Limitations of Dialogue	IA	CTL	SPBC		Minor	The mathematical concept of 'region of validity' was a very important topic, and we did a great deal of work with systems theories. Students were challenged by it and would be less inclined to say they feared math and science after studying these topics. With the exception of what we did with theoretical math that we used, we did no applied mathematics.
2005-06	Reconciliation: A Process of Human Balance; Study Abroad Winter: Peru	IA	SPBC	NAWIP		Minor	Raul's workshops.
2001-02	Scale and Detail	IA	EA	SI		Minor	Land surveying and GIS
2002-03	Silver Sky	IA	CTL	ES		Minor	Demographic and natural resource figures and trends were used in lectures on the history of the Pacific Northwest.
2005-06	Vietnam and Iraq War: Uncomfortable Parallels?	IA	SPBC	CTL		Minor	Discussion of social statistics and quantitative learning about body counts. Also discussion about how the US government tried to measure success in Vietnam, and alternative viewpoints for understanding that.
2004-05	Chemistry for the Health Professions	SI				Minor	We performed arithmetic calculations and worked with logs.
2002-03	Data to Information	SI				Minor	Some quantitative work in Discrete Mathematics.
2004-05	Science Seminar	SI				Minor	See 2
2005-06	Science Seminar	SI				Minor	Astronomy, Cosmology, Physics.
2001-02	Student Originated Software	SI				Minor	Evaluating software solutions to problems
2004-05	500 Years of Globalization	SPBC				Minor	Working with the tables, graphs, charts that appeared in our reading.
2005-06	Buddhist Psychotherapy	SPBC				Minor	Some activities required mathematical calculations and reasoning
2002-03	Business in Action	SPBC				Minor	Students created business simulations.
2003-04	Constructing the North American State, 1750-1800	SPBC				Minor	Again, in several of the students' critical review essays
2003-04	Engaging Cuba	SPBC				Minor	Examined data on Cuban society – social and economic statistics.
2003-04	Growing Up Global	SPBC				Minor	Workshops. Read Joel Best's Damned Lies and Statistics. Interpreted graphs in our books in class.

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2004-05	How People Learn	SPBC				Minor	To the degree that QR involves looking for relationships and patterns we did a lot of this, but no formal math or numeracy were involved. Students were asked to regularly boil down and map the big ideas of a text using visual symbols and flow charts (eg. Venn diagrams) for a text that was contrasting something.
2004-05	Marxist Theory	SPBC				Minor	basic economics
2002-03	Masculinities and Femininities Across the Globe	SPBC				Minor	Workshop constructing visual displays from and interpreting tables of data on gender and education. Students were bored. Students included statistics in their presentations – great comparative devise.
2004-05	Masculinities and Femininities Across the Globe	SPBC				Minor	A few percentages in one fieldwork exercises-very minor emphasis.
2002-03	Multicultural Counseling	SPBC				Minor	Critiquing of quantitative research methods and primary source articles – worked well.
2005-06	Multicultural Counseling	SPBC				Minor	Critique and articles in research methods.
2004-05	Organizing for Democracy	SPBC				Minor	see math part
2004-05	Patience	SPBC				Minor	Some student projects incorporated quantitative reasoning for fundraising; for planning business budgets and making business decisions; in mapping and calculating water ratios and depth; and in production of music.
2005-06	Philosophy, Society and Globalization: How We Got Where We Are	SPBC				Minor	We briefly studied game theory.
2002-03	Political Economy and Social Change	SPBC				Minor	Students engaged in symbolic modeling activities (e.g. elementary game theory), manipulation of large data sets on Excel, etc. These activities contributed very positively.
2005-06	Political Economy and Social Change	SPBC				Minor	Minor work worth about six hours of classroom time devoted to statistics and economic charts.
2004-05	Pooled Sovereignty and Corporate Management	SPBC				Minor	
2003-04	Working the Waters	SPBC				Minor	Piloting and navigation includes some algebra and geometry.
2005-06	Tribal Reservation-Based/Community Determined: Muckleshoot	TRI				Minor	Not at site, but "Descriptive Statistics" was taught on Saturdays at Longhouse by A. Jenkins.

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2005-06	Tribal Reservation-Based/Community Determined: Skokomish	TRI				Minor	Students studied many mathematical concepts through an examination and through reporting mathematical concepts mentioned in each book selected for study. Study of Pascal's triangle and the application of basic geometrical shapes found commonly in Indigenous communities worldwide.
2004-05	Tribal: Reservation-Based/Community Determined: Muckleshoot	TRI				Minor	2 credit strands taught at weekend classes- not all students opted for this strand, however.
2004-05	Tribal: Reservation-Based/Community Determined: Quinault	TRI				Minor	Quantitative reasoning is incorporated at sites and in strand (individual classes) offerings. It is woven into the major study areas as appropriate, especially during research and statistical analysis.
2005-06	Columbia River: Origins, Salmon and Culture	CORE	ES			No	
2001-02	Expression of Self	CORE	EA	CTL		No	
2001-02	Eyes and Ears	CORE	EA			No	
2003-04	Fiction and Nonfiction	CORE	CTL			No	
2005-06	Growing up Global	CORE	SPBC			No	
2002-03	Imaging the Body	CORE	EA	ES		No	
2004-05	Imagining the Past	CORE	CTL			No	
2005-06	Madness and Creativity: The Psychological Link	CORE	CTL	SPBC		No	
2004-05	Nature/Image	CORE	EA			No	
2004-05	Old and New Worlds	CORE	CTL	EA		No	
2003-04	Something Out of the Ordinary	CORE	SPBC	EA		No	
2002-03	Weird and Wondrous	CORE	CTL	EA		No	
2002-03	America Documented	CTL				No	
2005-06	America, to 2006	CTL				No	
2004-05	Arab and Muslim Women Writers	CTL				No	
2005-06	Art of Conversation	CTL				No	
2002-03	Celluloid Women and Men	CTL				No	
2001-02	Creative Nonfiction	CTL				No	
2001-02	Culture, Context, Human Rights	CTL				No	

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2005-06	Democracy and Equality	CTL				No	
2003-04	Documenting the Northwest	CTL				No	
2004-05	English Romantics	CTL				No	
2004-05	Exploring Judaism	CTL				No	
2004-05	Faulkner and Friends	CTL				No	
2001-02	Fiction and Nonfiction	CTL				No	
2002-03	Fiction and Nonfiction	CTL				No	
2004-05	Fiction and Nonfiction	CTL				No	
2005-06	Fiction Laboratory	CTL				No	
2003-04	Four Philosophers	CTL				No	
2002-03	Great British and Irish Moderns	CTL				No	
2001-02	Hemingway, Writing Life	CTL				No	
2002-03	Hispanic Forms in Life and Art	CTL				No	
2005-06	Human Rights, Literature and Theory	CTL				No	
2003-04	Illustrations of Character	CTL				No	
2004-05	Illustrations of Character: Literary and Philosophical Studies	CTL				No	
2002-03	Image Conscious	CTL				No	
2005-06	Japan Today: Studies of Japanese Language, History, Literature, Cinema and Culture; Study Abroad	CTL				No	
2005-06	Language and Law	CTL				No	
2002-03	Light and Terror	CTL				No	
2005-06	Locating Queer Studies	CTL				No	
2003-04	Media Rhetoric	CTL				No	
2002-03	Myth of Memory	CTL				No	
2003-04	Narrative Poems of the Golden Age	CTL				No	

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2005-06	Nation and Narration: Mexico/Brazil	CTL				No	
2001-02	Nietzche-Borges: Artist-Philosopher	CTL				No	
2004-05	Nietzsche	CTL				No	
2004-05	Novel: Life and Form	CTL				No	
2001-02	Pablo Neruda: Love, Politics, Poetry	CTL				No	
2004-05	Perception, Language and Reality	CTL				No	
2004-05	Poetics and Power	CTL				No	
2005-06	Political Bodies: Recent Chilean Literature	CTL				No	
2002-03	Postbellum	CTL				No	
2002-03	Postcolonial Literature	CTL				No	
2002-03	Postmodernity and Postmodernism	CTL				No	
2003-04	Queer Looks, Queer Books	CTL				No	
2005-06	Reading Jouissance as Ananda	CTL				No	
2004-05	Renaissance Studies	CTL				No	Ten minutes of the "monsters of the sea" estimation technique in statistics and it's application in estimating how much larger Shakespeare's actual vocabulary was than the vocabulary actually employed in the plays.
2005-06	Res Publica: Examining the Body Politic	CTL				No	
2004-05	Russia: Empires and Enduring Legacies	CTL				No	
2003-04	Shakespeare	CTL				No	
2003-04	Steinbeck's Americans	CTL				No	
2003-04	The Folk: Power of an Image	CTL				No	
2001-02	Tragic Relief	CTL				No	
2001-02	Uniquely Dutch	CTL				No	
2005-06	William Faulkner: Yoknapatawpha Saga	CTL				No	

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2004-05	Women's Voices and Images of Women	CTL				No	
2004-05	Foundations of Performing Arts	EA				No	
2005-06	Foundations of Performing Arts: Music and Theater	EA				No	
2005-06	Foundations of Visual Art	EA				No	
2004-05	Foundations of Visual Arts	EA				No	
2005-06	Incisive Line	EA				No	
2005-06	Inventing Systems With Music and Movement Theater	EA				No	
2003-04	Issues in Contemporary Art	EA				No	
2003-04	Music Composition for the 21st Century	EA				No	
2004-05	Photo Projects	EA				No	
2005-06	Sculpture: Site Specific	EA				No	
2005-06	Seeing the Light	EA				No	
2004-05	Shadowlands	EA				No	Maybe in budgeting and planning.
2003-04	Studio Projects: Painting	EA				No	
2004-05	Teaching Through Performance: American Radical History	EA				No	
2005-06	Advanced Floristic Research	ES				No	
2004-05	Community Food Systems in Nicaragua and Costa Rica	ES				No	Conversions
2003-04	Environment, Health, and Community	ES				No	
2002-03	Farm to Table	ES				No	
2004-05	Farm to Table	ES				No	
2004-05	Plant Ecology and Taxonomy	ES				No	vegetation analysis
2004-05	Practice of Sustainable Agriculture	ES				No	

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2004-05	Protected Areas?	ES				No	
2004-05	Teaching Gardens	ES				No	
2003-04	Up Close	ES				No	
2005-06	1905	EWS	CTL	SI		No	
2003-04	Age of Irony: 20th-Century America	EWS	CTL	SPBC		No	
2001-02	American Renaissance	EWS	CTL			No	
2002-03	American Ways of Seeing	EWS	CTL			No	
2005-06	Art of Mexico	EWS	CTL	EA		No	
2003-04	Art, Creativity, and the Sacred	EWS	EA	CTL		No	
2004-05	Art, Words, and Women	EWS	SPBC	EA		No	
2005-06	Arts, Environment and the Child: Walking the Wheel of the Seasons	EWS	ES	EA		No	There was a very minor emphasis in looking at botanical medicine preparations; however, the program did not include quantitative reasoning as a major emphasis.
2002-03	Authentic Self	EWS	SPBC	EA		No	
2002-03	Education, Values, and Society	EWS	SPBC			No	
2004-05	Embracing Conflict	EWS	SPBC	CTL		No	
2003-04	Evil: Concepts and Realities	EWS	SPBC	CTL		No	
2004-05	Florence, The Cradle of the Renaissance	EWS	EA			No	
2002-03	Global Cities	EWS	CTL	SPBC		No	
2001-02	Good Organization	EWS	GRH	SPBC		No	
2002-03	Group Dynamics	EWS	SPBC			No	
2005-06	History According to Film	EWS	EA	CTL		No	
2002-03	Justice at Work	EWS	SPBC			No	We already had our hands full with legal and sociological reasoning!
2005-06	Liberty and Justice For All: Contemporary Political Philosophies In Historical Context	EWS	CTL			No	
2001-02	Living Myths	EWS	CTL			No	
2005-06	Making Your Place	EWS	EA	SPBC		No	Our scene designers in spring quarter used math to create scale drawings and construct scenery, but we did not teach or emphasize math.

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2002-03	Mexico: Art and Ceremony	EWS	EA	CTL		No	
2004-05	Paradigms of Leadership	EWS	SPBC			No	
2004-05	Peacemaking	EWS	SPBC			No	
2005-06	People Management in Organizations	EWS	SPBC			No	
2003-04	Real World Computing	EWS	SI			No	
2003-04	Shakespeare: Body and Soul	EWS	CTL			No	
2001-02	Sight and Insight: Art & Social Change	EWS	EA	SPBC		No	
2001-02	Success and American Dreams	EWS	SPBC			No	
2005-06	Victoria Still Rules	EWS	CTL	SI		No	
2004-05	Women's West	EWS	SPBC	EA		No	
2004-05	Work and the Human Condition	EWS	SPBC	EA	CTL	No	
2005-06	Managers as Leaders: Public Sector Leadership with Rapid Change	EWS-GRH	SPBC			No	
2005-06	American Frontiers: Critical Histories	IA	NAWIP	CTL		No	
2004-05	American Places	IA	CTL	NAWIP		No	
2005-06	Animated Visions: Allegories of Resistance	IA	EA	CTL		No	
2003-04	Art of Local History	IA	ES	CTL		No	
2005-06	Art's Sources	IA	EA	CTL		No	
2005-06	Asian Culture and Art; Study Abroad Winter: India; Study Abroad Spring: China	IA	CTL	EA		No	
2003-04	Christian Roots	IA	ES	EA		No	
2001-02	Destiny	IA	NAWIP	SPBC		No	
2004-05	Framing Film	IA	EA	CTL		No	
2002-03	Health and Human Development	IA	SI	SPBC	CTL	No	
2003-04	Here, There, and Everywhere	IA	SPBC	ES		No	
2004-05	Imperialism	IA	CTL	SPBC		No	
2001-02	International Feminism	IA	SPBC	EA	CTL	No	

Academic Year	Program Name	Planning Group	Detail1	Detail 2	Detail 3	QR emphasis	How was Quantitative Reasoning included in your program?
2003-04	Ireland: Living Between Worlds	IA	EA	CTL		No	
2004-05	Local Knowledge	IA	EA	ES		No	
2003-04	Looking Backward	IA	CTL	SPBC		No	This version of the program did not have the introductory statistics elements of earlier versions.
2001-02	Performative Shakespeare	IA	CTL	EA		No	
2002-03	Picturing Plants	IA	ES	EA		No	
2004-05	Rhythmic Meditations	IA	SPBC	EA		No	Some in drum making and individual research projects i.e. making labyrinths.
2001-02	Transatlantic Revolutions	IA	CTL	SPBC		No	
2005-06	Voice of the Poem and Other Musics	IA	EA	CTL		No	
2005-06	Anti-Indian Movements: Origin, Images and Responses	NAWIP				No	
2004-05	American Civil War in Modern Memory	SPBC				No	
2003-04	Constructing Citizens	SPBC				No	
2003-04	Culture and Participatory Research	SPBC				No	
2004-05	Culture and Participatory Research	SPBC				No	
2001-02	Good Life in the Good Society	SPBC				No	
2002-03	Good Life in the Good Society	SPBC				No	
2004-05	Health in a Biocultural Perspective	SPBC				No	
2001-02	Mexican Nation State	SPBC				No	
2003-04	So You Want to Be a Psychologist	SPBC				No	
2004-05	So You Want to Be a Psychologist?	SPBC				No	
2005-06	So, You Want to Be a Psychologist?	SPBC				No	
2003-04	Turning Eastward	SPBC				No	
2004-05	Turning Eastward: Explorations in East/West Psychology	SPBC				No	

Academic Year	Program Name	Planning Group	Detail1	Detail 2	Detail 3	QR emphasis	How was Quantitative Reasoning included in your program?
2005-06	What's Love Got To Do With It? Contemporary Issues in Marriage and Family Life	SPBC				No	
2003-04	Tribal: Reservation Based-Muckleshoot	TRI				No	