

## Narrative Transcript Supplement: St. John's College, Annapolis, Maryland

St. John's is a small liberal arts college offering an almost entirely prescribed curriculum: the only exception is that juniors and seniors have a choice of topics for preceptorial, described below. All classes are required for all students. Students are admitted only as freshmen; transfer credits are not accepted. Graduation is based upon successful completion of the four-year program.

**Freshman Seminar:** 4 credit hours per semester/ 17-21 students/ 2 instructors

Careful study of selected great books; usually 50-150 pages in preparation for each class; class meetings are discussion sessions of two hours each. Readings from Homer, Aeschylus, Sophocles, Euripides, Herodotus, Thucydides, Plutarch, Aristophanes, Plato, Lucretius, and Aristotle.

Oral examination in each semester required.

**Freshman Annual Essay:** .50 credit hours second semester

Paper on approved topic from freshman seminar studies; minimum 3,000 words. Used in second semester as basis of oral examination by seminar instructors.

**Freshman Language:** 4 credit hours per semester/ 13-16 students/ 1 instructor

Elements of Ancient Greek, emphasizing morphology, syntax, and translation. Study of selected Greek poetry and prose, with special attention to Plato's *Meno*. Study of English grammar and style, and exercises in English prose composition. Papers, quizzes, written and oral translation required.

**Freshman Mathematics:** 4 credit hours per semester/ 13-16 students/ 1 instructor

Synthetic plane and solid geometry, general theory of ratios, and number theory from Euclid's *Elements*. First three books of Ptolemy's *Almagest*, with emphasis on the mathematical treatment of the sun's apparent motion.

Papers, problems, and proofs at the board required.

**Freshman Laboratory:** 4 credit hours per semester/ 14-16 students/ 1 instructor

Observational biology. Readings from Aristotle, Tinbergen, Harvey, Virchow, Driesch, Spemann, and others. Study of measurement and equilibrium, with attention to weight, pressure, heat and temperature, and the development of the gas laws. Readings from Archimedes, Pascal, Black, and others. Study of the foundations of modern chemistry and the development of atomic theory. Readings from Lavoisier, Dalton, Gay-Lussac, Avogadro, Cannizzaro, and Mendeleev.

Laboratory experiments, reports, and papers required.

**Freshman Music:** 1 credit hour per semester/ 1 instructor

Introduction to the elements of music notation and four-part choral music. Freshman class meets in sections to learn elements. Choral works by Purcell, Bach, Mozart, and others are learned in sections and then practised by the class as a whole.

Written examination on elements required.

**Sophomore Seminar:** 4 credit hours per semester/ 17-21 students/ 2 instructors

Careful study of selected great books; usually 50 –150 pages in preparation for each class; class meetings are discussion sessions of two hours each. Readings from Plutarch, Virgil, Tacitus, Plotinus, the Bible, Augustine, Anselm, Aquinas, Dante, Chaucer, Rabelais, Luther, Machiavelli, Montaigne, Bacon, Descartes, and Shakespeare.

Oral Examination in each semester required.

**Sophomore Annual Essay:** 1 credit hour second semester

Paper on approved topic from sophomore seminar studies; minimum 3,000 words. Used in second semester as basis of oral examination by seminar instructors.

**Sophomore Language:** 4 credit hours per semester/ 13-16 students/ 1 instructor

Continued study of Ancient Greek through translation of selections from either a Sophocles tragedy or one of Homer's epics. Formal logic, based largely on Aristotle. English poetry, including one Shakespeare play in its entirety.

Papers and oral translations required.

**Sophomore Mathematics:** 4 credit hours per semester/ 13-16 students/ 1 instructor

Study of Ptolemy's mathematical treatment of planetary motion, portions of Copernicus' *On the Revolutions of the Heavenly Spheres*, and related readings in Kepler. Geometrical exposition of conic curves and their properties from *Apollonius' Conic Sections*. Introduction to modern coordinate geometry. Readings from Viète, Descartes, and Pascal.

Papers, problems, and proofs at the board required.

**Sophomore Music:** 4 credit hours per semester/ 14-16 students/ 1 instructor

Study of the elements of melody, counterpoint, and harmony. Close study of major works, including Bach's *St. Matthew Passion* and a Mozart opera. Discussion and analysis supported by weekly choral practica.

Papers, exercises, quizzes, and oral presentations required.

**Junior Seminar:** 2 credit hours first semester, 4 credit hours second semester/ 17-21 students/ 2 instructors

Careful study of selected great books; usually 50-150 pages in preparation for each class; class meetings are discussion sessions of two hours each. Readings from Cervantes, Descartes, Milton, Pascal, Hobbes, Locke, Spinoza, Leibniz, George Eliot, Hume, Kant, Jane Austen, Rousseau, Swift, Adam Smith, *The Federalist*, and Mark Twain.

Oral examination in each semester required.

**Junior Annual Essay:** 1 credit hour second semester

Paper on approved topic from junior seminar studies; minimum 3,000 words. Used in second semester as basis of oral examination by seminar instructors.

**Junior Language:** 4 credit hours per semester/ 13-16 students/ 1 instructor

Study of Modern French with emphasis on morphology, syntax, style, and problems of translation. Readings from La Rochéfoucauld, Pascal, Valéry, La Fontaine, Racine, and Molière.

Papers, quizzes, written and oral translations required.

**Junior Mathematics:** 4 credit hours per semester/ 13-16 students/ 1 instructor

Introductory study of calculus, including theory of limits, derivatives, integrals, trigonometric and logarithmic functions, with reference to the synthetic calculus of Newton's Lemmas. Close study of portions of Newton's *Principia*, including the two and three-body problems and "The System of the World." Study of the foundations of analytical calculus through Dedekind's essay, "Continuity and Irrational Numbers."

Papers, problems, proofs at the board required.

**Junior Laboratory:** 5 credit hours per semester/ 14-16 students/ 1 instructor

Classical kinematics and dynamics. Readings from Galileo, Descartes, Huygens, Leibniz, Newton, and Maxwell. Study of periodic motion, with special attention to the pendulum and vibrating string. Readings from Taylor, Euler, and Bernoulli. Study of geometrical optics. Readings from Huygens, Newton, and Young. Classical theory of electricity and magnetism, culminating in the differential form of Maxwell's equations. Readings from Faraday and Maxwell.

Laboratory experiments, reports, papers, and proofs at the board required.

**Junior Preceptorial:** 2 credit hours first semester/ 5-12 students/ 1 instructor

Intensive eight-week study of an author, text, problem, or discipline. Sessions are typically two hours long. Topics vary annually; sections open to juniors and seniors together. Required work may include reports, a paper, mathematical demonstrations, experiments or translation.

**Senior Seminar:** 2 credit hours first semester, 3 credit hours second semester/ 17-21 students/ 2 instructors

Careful study of selected great books; usually 50-150 pages in preparation for each class; class meetings are discussion sessions of two hours each. Readings from Tolstoy, Hegel, Marx, Melville, Kierkegaard, Nietzsche, Dostoevsky, *The Federalist*, Lincoln, Supreme Court decisions, Booker T. Washington, W.E.B. DuBois, Tocqueville, Faulkner, Flannery O'Connor, William James, Freud, Conrad, Heidegger, and Plato.

**Senior Language:** 4 credit hours first semester, 3 credits hours second semester/ 13-16 students/ 1 instructor

Continued study of Modern French poetry and prose. Readings from Baudelaire and selected late 19<sup>th</sup> and 20<sup>th</sup> century poets. Study of selected poetry and fiction from more recent French, English, and American sources.

Papers, written and oral translations required.

**Senior Mathematics:** 4 credit hours first semester, 3 credit hours second semester/ 13-16 students/ 1 instructor

Non-Euclidean geometry and logical foundations of geometry, including the problem of completeness and consistency. Readings from Lobachevski, Hilbert, and others. Close study of special relativity through Einstein's 1905 paper. Readings from Einstein, Minkowski, and others.

Papers, problems, and proofs at the board required.

**Senior Laboratory:** 4 credit hours first semester, 3 credit hours second semester/ 14-16 students/ 1 instructor

Introduction to atomic structure and wave mechanics. Readings from Faraday, Thomson, Millikan, Rutherford, Einstein, Bohr, Schroedinger, de Broglie, Davisson, and Heisenberg. Evolution, Genetics and Molecular Biology. Readings from Darwin, Mendel, Boveri, Sutton, Morgan, Sturtevant, Beadle and Tatum, Watson and Crick, Jacob and Monod, Hardy, and Chetverikov.

Laboratory experiments, reports, papers, problems required.

**Senior Preceptorial:** 2 credit hours first semester/ 5-12 students/ 1 instructor

Intensive 8-week study of an author, text, problem, or discipline (for example, projective geometry). Sessions are typically two hours long. Topics vary annually; sections open to juniors and seniors together. Required work may include reports, a paper, mathematical demonstrations, experiments or translation.

**Senior Essay:** 3.5 credit hours second semester

Major paper on approved topic from the four-year program of studies; written under the supervision of a faculty advisor; submitted to a faculty committee of three for approval. If approved, the essay serves as the basis for an hour-long public oral examination conducted by the committee.