

## Chemistry – Classical Civilization

### CHEM 440 Biochemistry I (4 credits)

The first course in a two-semester sequence examining the chemistry underlying biological processes. The topics addressed include a review of the properties of aqueous solutions and buffers; the structure and function of proteins, carbohydrates and lipids; an introduction to the properties, reaction kinetics and catalytic mechanism of enzymes; membrane structure and function; qualitative and quantitative models of bioenergetics; and an introduction to metabolic regulation and control featuring carbohydrate metabolism as well as the citric acid cycle. Lecture plus four laboratory hours per week. Offered fall semester.

Prerequisite: A minimum grade of C- in CHEM 202

### CHEM 442 Biochemistry II (4 credits)

The second course in a two-semester sequence examining the chemistry underlying biological processes. Topics include a continued investigation of bioenergetics focusing on oxidative phosphorylation and photophosphorylation; fatty acid metabolism; amino acid metabolism; nucleotide synthesis; mechanisms and regulation of gene expression; protein synthesis; and methods in genetic engineering. Lecture plus four laboratory hours per week. Offered spring semester.

Prerequisite: A minimum grade of C- in CHEM 440

### CHEM 475, 476 Experiential Learning (2 credits)

### CHEM 477, 478 Experiential Learning (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### CHEM 481, 484 Student Seminar (1 credit)

### CHEM 482, 483 Student Seminar (0 credit)

This sequence of courses begins in the fall semester of the junior year and progresses for a total of four semesters. The first (CHEM 481) and last (CHEM 484) courses are each one credit and are graded on the usual letter grade scale. The interior two courses (CHEM 482, 483) are zero credit and are graded on a pass-fail basis (S/R). Seminars are presented by guest speakers, St. Thomas faculty, and St. Thomas students throughout all four courses. In CHEM 481, juniors are introduced to the chemical literature, literature search techniques including use of computer databases, and write a short paper based on literature research. In CHEM 483 seniors meet in small groups with faculty and discuss articles from the current literature. In CHEM 484, seniors research a topic from the chemical literature and present it in both written and oral formats. Information about career opportunities for students holding a chemistry degree is presented throughout the seminar sequence. Required of all chemistry majors. CHEM 481 and 483 offered fall semester. CHEM 482 and 484 offered spring semester.

### CHEM 487, 488 Topics (2 credits)

### CHEM 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available at [www.stthomas.edu/registrar/onlineschedule/](http://www.stthomas.edu/registrar/onlineschedule/).

### CHEM 491, 492 Research (2 credits)

### CHEM 493, 494 Research (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### CHEM 495, 496 Individual Study (2 credits)

### CHEM 497, 498 Individual Study (4 credits)

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## Classical Civilization (CLAS)

College of Arts and Sciences

Interdisciplinary Program

Quartarone, director

The study of Classical civilization – the cultures of ancient Greece and Rome and their relationship to the societies of the Mediterranean and the Near East – is the origin and foundation of the modern university. To this day, it continues to be a model of an interdisciplinary approach to the study of culture, combining fields of literature and language, history, archaeology and art history, religious studies, and philosophy.

The Classical Civilization major at St. Thomas provides an opportunity for students to integrate various disciplines in the study of a subject. It also provides an awareness of the origins of modern culture and religion and the influence of other ancient cultures of the Near East and Egypt upon its formation. This interdisciplinary program includes an introductory foundation course, a series of courses from a variety of supporting disciplines, and a capstone senior paper requirement.

### Major in Classical Civilization

CLAS 245 Classical Mythology (4 credits)

CLAS 397 Topics (4 credits)

CLAS 480 Senior Paper (4 credits)

ENGL 220 The Classical Tradition (4 credits)  
 HIST 111 Origins of the Modern World to 1550 (4 credits)  
 HIST 300-level ancient history course approved by director  
 PHIL 200 Ancient Philosophy (4 credits)

*Plus four credits from the following:*

GREK 212 Intermediate Greek II (4 credits) (prerequisites may be necessary)  
 LATN 212 Intermediate Latin II (4 credits) (prerequisites may be necessary)  
 GREK or LATN - Four credits numbered above 212

*Plus four credits from the following:*

ARTH 305 Greek Art and Archaeology (4 credits)  
 ARTH 310 Roman Art and Archaeology (4 credits)

*Plus eight credits from the following courses not already taken above:*

ARTH 305 Greek Art and Archaeology (4 credits)  
 ARTH 310 Roman Art and Archaeology (4 credits)  
 COMM 440 Classical Rhetoric (4 credits)  
 GREK 342 Greek Reading and Exegesis: John (4 credits)  
 GREK - additional course  
 HIST 302 Classical and Early Hellenistic Greece (4 credits)  
 HIST 304 The Roman Republic and the Early Principate (4 credits)  
 HIST 306 The World of Late Antiquity: A.D. 284-641 (4 credits)  
 HIST 307 The Church in the Roman Empire to A.D. 395 (4 credits)  
 LATN 360 Philosophy in Latin Texts (4 credits)  
 LATN - additional course  
 PHIL 230 Greek Philosophers on the Foundations of Knowledge (4 credits)  
 PHIL 320 Aristotelian Logic (4 credits)  
 THEO 210 New Testament (4 credits)  
 THEO 220 Early Christian Theology (4 credits)

**CLAS 245 Classical Mythology (4 credits)**

Mythology is the embodiment and encoding of the beliefs, principles, and aspirations of ancient cultures. This course provides an interdisciplinary introduction to mythology as an introduction and foundation to Classical civilization. Myths will be examined from a variety of perspectives, including the study of literature in translation, art historical, religion, and history.

**CLAS 397 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available at [www.stthomas.edu/registrar/onlineschedule/](http://www.stthomas.edu/registrar/onlineschedule/).

**CLAS 475, 476 Experiential Learning (2 credits)**

**CLAS 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**CLAS 480 Senior Paper (0 credit)**

During the senior year or earlier majors are expected to write a major research paper with an abstract and to describe the results of their research in a short oral presentation to a panel of faculty. Normally this requirement is accomplished by rewriting and submitting a paper from one of the major field courses. The topic should be chosen in consultation with the program director and should be completed no later than 6 weeks prior to graduation. Papers will be presented to students and faculty at least annually at a symposium.

**CLAS 483, 484 Seminar (2 credits)**

**CLAS 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**CLAS 487, 488 Topics (2 credits)**

**CLAS 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available at [www.stthomas.edu/registrar/onlineschedule/](http://www.stthomas.edu/registrar/onlineschedule/).

**CLAS 491, 492 Research (2 credits)**

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See the description of these courses at the beginning of the “Curricula” section of this catalog.

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