

MATH 365: Number Theory (3)

Prerequisite: MATH 301 or permission of the instructor. Topics include prime numbers, Euclidean algorithm, congruences, Chinese Remainder Theorem, Fermat's Little Theorem, Euler's Theorem, arithmetic functions, Euler's phi function, perfect numbers, the quadratic reciprocity law, continued fractions, and other topics as time and student interest permit.

Winter 2010 and alternate years.

MATH 369: The Mathematics of Puzzles and Games (4)

Prerequisite: MATH 322. The application of mathematics to puzzles and games. A brief survey on the designs of tournaments. The puzzles and games include but are not limited to the Rubik's Cube, poker, blackjack, and peg solitaire. *Dymáček.*

Spring 2010 and alternate years

MATH 383: Seminar (3)

Prerequisite: Permission of the department. Readings and conferences for a student or students on topics agreed upon with the directing staff. May be repeated for degree credit with permission and if the topics are different. *Staff.*

Fall, Winter

Note: Seminar and research offerings are contingent upon the demonstrated need and aptitude of the student for independent work in mathematics and upon the availability of departmental resources.

MATH 401, 402, 403:**Directed Individual Study (1,2,3)**

Prerequisite: Permission of the department. Individual conferences. May be repeated for degree credit with permission and if the topics are different.

MATH 421, 422, 423, 426:**Directed Individual Research (1,2,3,6)**

Prerequisite: Permission of the department. Directed independent work in mathematics, especially for honors candidates. May be repeated for degree credit with permission and if the topics are different.

MATH 493: Honors Thesis (3-3)

Prerequisites: Honors candidacy, senior standing.

Fall-Winter

Military Engineering—For qualified students who may request it, a course in fortifications, gunnery, and ballistics will be offered.

MEDIEVAL AND RENAISSANCE STUDIES (MRST)

CORE FACULTY:

PROFESSORS BAILEY, BENT, BROWN, CAMPBELL, CRAUN, CROCKETT, MARKS, RADULESCU, SANDERS, SESSIONS, SPICE
ASSOCIATE PROFESSORS PETERSON*, FRÉGNAC-CLAVE, KOSKY
ASSISTANT PROFESSORS GERTZ, HATCHER, JIRSA, JOHNSON, PICKETT, PRAGER

MAJOR

A major in Medieval and Renaissance Studies leading to a Bachelor of Arts degree requires completion of at least 33 credits as follows:

1. Students must complete one of the following language sequences:
 - a. Six credits at the third-year level in French, German, Italian, Latin, Russian, or Spanish
 - b. The FL or GE2 requirement (i.e. qualified to enter third-year study) in French, German, Italian, Latin, Russian or Spanish and complete the first year of study in a second of these languages
2. MRST 110 (also, HIST 100 and 101 and REL 101 and 102 are strongly recommended)
3. 27 credits chosen from courses in the following four areas. Majors must complete four courses in one area, two courses in two other areas, and one course in the fourth area.
 - a. *History and History of Science:* HIST 170, 201, 202, 203, 204, 217, 305; PHYS 150; and, when appropriate, HIST 229, 395, and 403; INTR 296; MRST 395, 403; PHYS 403; and ROML 295
 - b. *Literature:* ENGL 240, 250, 311, 312, 313, 318, 319, 320, 326, 330; GERM 318; LATN 327; LIT 255; SPAN 211, 220, 320, 322; and, when appropriate, ENGL 299, 380, 403; FREN 341, 403; GERM 395, 403; INTR 296; ITAL 403; LIT 295, 395; MRST 395, 403, ROML 295; and SPAN 397, 403
 - c. *History of Ideas:* HIST 306; PHIL 221 (CLAS 221), 222; REL 151, 215, 250, 271, 282, 283, 287; and, when appropriate, FREN 341; HIST 395, 403; INTR 296; MRST 395, 403; PHIL 395, 403; POL 396, 403; REL 260, 350, 403; and ROML 295
 - d. *Fine Arts:* ARTH 253, 254, 255, 256, 285, 350, 353, 354, 355; MUS 201, 331; and, when appropriate, ARTH 394, 403; INTR 296; MRST 395, 403; MUS 374, 423; and ROML 295
4. MRST 473 or 493 (3-3).

HONORS: An Honors Program in Medieval and Renaissance Studies is offered for qualified students; see the program head for details.

**Head of the Medieval and Renaissance Studies major*

MRST 110 (3): Medieval and Renaissance Culture

An introduction to the interdisciplinary study of the Medieval and Renaissance periods through the study of a particular topic. Recent studies: The Crusades, Monasticism, Chivalry, Elizabethan England, the Birth of Italian Literature, and European Encounters with Islam. (Offered as 110A when HL; GE3 or as 110 when HU; GE4a, depending on topic.) *Staff*.

Winter

MRST 395 (3): Seminar in Medieval and Renaissance Studies

Prerequisite: Permission of the instructor. A seminar concentrating on topics or concepts relevant to Medieval and Renaissance studies. Topics are offered according to the interests of participating faculty. This course may be repeated for degree credit with permission and if the topics are different. *Staff*.

Offered when interest is expressed and departmental resources permit.

MRST 403 (3): Directed Individual Study

Prerequisite: Permission of the instructor. Individual study of selected topics in Medieval and Renaissance studies. May be repeated for degree credit with permission and if the topics are different. *Staff*.

MRST 473 (3): Senior Thesis

Prerequisites: Permission of the program head and the major adviser. Individual research devoted to an original topic dealing with issues pertinent to Medieval and Renaissance studies. The focus of this thesis should coincide with the area of study in which the student has done the most work and should be grounded in interdisciplinary themes. Projects should be approved no later than September 30 of the senior year. *Staff*.

Winter

MRST 493 (3-3): Honors Thesis

Prerequisites: Senior standing, cumulative grade-point average of 3.300, and permission of the Medieval and Renaissance Studies Committee. Honors thesis devoted to a specialized topic in Medieval and Renaissance studies. Applications for honors should be submitted no later than May 1 of the junior year. *Staff*.

Fall-Winter

Medieval and Renaissance Studies courses are as follows; for course descriptions, see the appropriate departmental listings.

ARTH 253: Medieval Art in Southern Europe
 ARTH 254: Medieval Art in Northern Europe
 ARTH 255: Northern Renaissance Art
 ARTH 256: Italian Renaissance Art
 ARTH 285: Art of the Cities of Northern Italy, 1250-1550
 ARTH 350: Medieval Art in Italy
 ARTH 353: Gothic Art in Northern Europe
 ARTH 354: Early Renaissance Art in Florence
 ARTH 355: The High Renaissance in Italy
 ENGL 240: Arthurian Legend
 ENGL 250: British Literature: Medieval and Early Modern
 ENGL 311: History of the English Language
 ENGL 312: Chaucer, Dante, Langland: Vision and Life

ENGL 313: Chaucer's *The Canterbury Tales*
 ENGL 318: Medieval and Renaissance Drama
 ENGL 319: Shakespeare and Company
 ENGL 320: Shakespearean Genres
 ENGL 326: 17th-Century Poetry
 ENGL 330: Milton
 GERM 318: German Medieval and Renaissance Literature
 HIST 170: History of Islamic Civilization I: Origins to 1500
 HIST 201: Europe in the Early Middle Ages, 325-1198
 HIST 202: Europe in the Late Middle Ages, 1198-1500
 HIST 203: The Italian Renaissance in Its Historical Setting
 HIST 204: The Age of Reformation
 HIST 217: History of The British Isles to 1688
 HIST 305: Seminar: Religion, Church and Politics in Medieval and Renaissance Society
 HIST 306: Seminar: Medieval and Renaissance Political Thought
 LATN 327: Medieval and Renaissance Writers
 LIT 255: Masterpieces of Peninsular Spanish Literature in Translation
 MRST 110: Medieval and Renaissance Culture
 MRST 395: Seminar in Medieval and Renaissance Studies
 MRST 403: Directed Individual Study
 MRST 473: Senior Thesis
 MRST 493: Honors Thesis
 MUS 201: Music History I
 MUS 331: Renaissance Music
 PHIL 221 (CLAS 221): Plato
 PHIL 222: Aristotle
 PHYS 150: The Immense Journey: *Harmonices Mundi*
 REL 151: Christianity and Culture Before 1500
 REL 215: Female and Male in Western Religious Traditions
 REL 250: Early Christian Thought: Orthodoxy and Heresy
 REL 271: Judaism: Sages and Mystics
 REL 282: The Qur'an
 REL 283: Sufism: Islamic Mysticism
 REL 287: Central Asian Islam and the Religions of the Silk Road
 SPAN 211: Spanish Civilization and Culture
 SPAN 220: Introducción a la literatura española
 SPAN 320: Don Quijote
 SPAN 322: La Comedia del Siglo de Oro

The following courses may also meet major requirements when the topic is appropriate:

ARTH 394: Seminar in Art History
 ARTH 403: Directed Individual Study
 ENGL 299: Seminar for Prospective Majors
 ENGL 380: Advanced Seminar
 ENGL 403: Directed Individual Study
 FREN 341: La France de l'Ancien Régime
 FREN 403: Directed Individual Study
 GERM 395: Seminar
 GERM 403: Directed Individual Study
 HIST 229: Topics in European History
 HIST 395: Advanced Seminar

HIST 403: Directed Individual Study
INTR 296: Spring Studies in Culture and Society
ITAL 403: Directed Individual Study
LIT 295: Special Topics in Literature in Translation
LIT 395: Literature in Translation Seminar
MUS 374: Supervised Study in Europe
MUS 423: Directed Individual Project
PHIL 395: Advanced Seminar
PHIL 403: Directed Individual Study
PHYS 403: Directed Individual Study
POL 396: Seminar in Political Philosophy
POL 403: Directed Individual Study
REL 260: Seminar in the Christian Tradition
REL 350: Seminar in Biblical Studies
REL 403: Directed Individual Study
ROML 295: Topics in Romance Languages
SPAN 397: Peninsular Seminar
SPAN 403: Directed Individual Study

MUSIC (MUS)

PROFESSORS **G. SPICE**, T. GAYLARD, KOLMAN,
VOSBEIN
ASSISTANT PROFESSOR LYNCH
INSTRUCTOR S. PETTY
REGULAR ADJUNCT FACULTY: ARTWICK, BUNTS,
CARLSON, FLORY, C. GAYLARD, GOUDIMOVA,
JELLISON, KLUESNER, MAGEE, McCORKLE,
OVERMAN, PENNE, B. PETTY, PIERSON, POME-
ROY, TAYLOR, ZWEBEN

MAJOR

A **major in music** leading to a Bachelor of Arts degree requires at least 36 credits as follows:

1. MUS 120, 161, 162, 201, 202, 260, 395, 473 or 493 (thesis), and completion of one of the following sequences:
 - a. *History*: three courses chosen from MUS 220, 221, 231, 232, 233, 295, 331, 332 and 396
 - b. *Theory-Composition*: MUS 361, 362, and one course chosen from MUS 233, 397, and 423 (with the approval of the theory/composition faculty)
 - c. *Performance*: three credits chosen from applied music courses at the 300-level or above; and six credits chosen from MUS 220, 221, 231, 232, 233, 331, 332, 361, 362, 396, and 423
2. Enrollment in ensemble courses (108-115) is required every fall and winter term after declaring the music major
3. Demonstrated piano proficiency by the end of the junior year
4. Concert attendance as required by the department.

MINOR

A **minor in music** requires at least 23 credits. A student may not complete both a major and a minor in music. In meeting the requirements of this discipline-based minor, a student may not use more than nine credits that are also used to meet the requirements of another major or minor.

1. MUS 120, 161, 162, 202
2. Two additional 3- or 4-credit courses in music taken at the 200 level or above
3. Three credits of ensemble coursework chosen from MUS 108-115

Note: Limits of eight credits in ensemble courses (MUS 108-116) and of nine credits for non-majors and 12 credits for majors from applied music courses (MUS 141-143, 241-243, 341-343, 441-443) allowable toward a degree. Credits taken in excess of these limits will be treated as repeats of the earliest unrepeatable credit of each kind. A fee is charged for applied music; music majors are entitled to take one applied music course per term without charge. One credit is earned for a 45-minute private lesson and a minimum of five hours practice a week during fall and winter terms; a one-hour private lesson and a minimum of seven hours practice a week are required during the spring term.

HONORS: An Honors Program in music is offered for qualified students; see department head for details.