## BRYN ATHYN COLLEGE

2023-24

## Undergraduate

Course Bulletin

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## Academic Reminders and Requirements

Make sure you have a tentative academic plan before you see your advisor to register for classes. Your advisor can provide information and perspectives that may help you make decisions, but it is your academic program. It is your responsibility to ensure it is the program you want and need.

To be full-time, choose $9-14.5$ credits each term that advance you toward degree or feed your interests. Fulltime students must take at least 9 credits each term. However, to stay on track for a graduation in four years and maintain full eligibility for student loans, you will need to complete, on average, 31 credits per year. Fulltime tuition covers up to 15 credits per term, but credits over 14.5 are considered overload. Additional payment is necessary for $15.5-17$ credits. Overload credits (15-17) require approval by the Dean of Academics. See the Student Handbook for more details: Catalog, Courses, and Forms | Bryn Athyn College

While progressing toward your degree, keep the following requirements in mind:

## First Year Requirements

- Two religion courses ( $100-$ level ) during the year, including passing Religion 101 or 110
- Writing 101 (and Writing 100 for provisional admits and those with SAT reading score below 450)
- Math 101 (if SAT math score below 500)
- To advance to second year status, you must complete residency requirements and at least 31 credits.


## Second Year Requirements

- Two religion courses during the year
- Writing 202
- Application to a major by end of the fifth full-time term
- To advance to third year status, you must complete residency requirements and at least 62 credits.


## Third Year Requirements

- One religion course (not 100 -level)
- Submit a Roadmap to Graduation checklist with assistance of advisor
- To advance to fourth year status, you must complete residency requirements and at least 93 credits, and be accepted into a major program.


## Fourth Year Requirements

- One religion course (not 100 -level)
- To be eligible to graduate, you must complete all major, core, and residency requirements, complete at least 124 credits (some majors may require more), and have a minimum 2.0 cumulative GPA.


## Course Recommendations by Intended Major

In addition to the residency requirements listed above, students interested in the following majors should take, if possible and academically prepared, the courses listed below in their first year.

- Biology: Bio122 \& 122L, Bio123 and 123L, Chem101, Chem110 and 110L, Chem111 and 111L, Math130, Bio 232 or Bio250
- Business: Econ 131 or 132, Phil101, Math130, Comm105, Bus141
- Building Arts: FA101, FA102, FA122, FA128, FA140, FA141, FA120 or 125 or 130
- Education: Ed128, ESci110, Geog110 or Anth110 or Soc110, any 100-level History course, two math courses, Phil102
- English and Communications: Comm105; Writ202 (if eligible); Eng105 and/or 110 (if taken twice or in combination can satisfy 200 -level lit)"
- Fine Arts ID: FA101 or 102
- Studio Arts Track: one studio or art history course
- Dance ID: one dance course (other than ensemble), Dan120
- Human Society: any three of: Anth110, Geog110, any 100-level History, PSci101, Soc110
- Math ID: Math150, Math151, Math250 or 311 (if B or better in Math151), one course in mathrelated field such as computer science, physics, or economics
- Philosophy ID: Phil101, Phil102
- Psychology: Psyc101, Bio122 and 122L, Math130, Psyc201, Psyc204, Psyc220
- Religion: Rel110, Rel205, Phil102, Phil111

For more information on a particular major or the Core Program, please see the information available in the BAC Academic Programs Bulletin (Catalog, Courses, and Forms | Bryn Athyn College), or the major worksheets (Majors and Tracks | Bryn Athyn College).

## Student Online Registration Instructions

First-year students must complete registration through their advisor. Second-year students and higher are eligible to perform their own registration during open registration sessions, assuming there are no financial holds on their accounts. Exact dates for open registration will be communicated by the registrar. To complete your own registration, follow these instructions

- Go to: https://brynathyn.jenzabarcloud.com/
- Login and click on "Students"
- Enter your PIN and ID (PIN is case sensitive, ID requires leading zeroes)
- If you forget your ID or PIN, click the link on login page
- Click on "Academics" and select Registration
- Select "View All" to see course list
- Register for a course by clicking on the number in the "spaces" column
- After selecting courses, click on "Continue Registration Process"
- Review courses and, if correct, click "Continue"
- Finalize by clicking "Return" button.
- If a course is full, you can add yourself to a wait list by clicking the number in the "wait" column

Notes:
You will need to see your advisor if you want to:

- audit a course
- conduct an independent study
- complete an internship
- take more than 14.5 credits
- drop a course after the first week of the term

Your advisor will guide you through the process of setting up an independent study, internship, or credit overload. Note that students and advisors will be unable to register for internships or independent studies
through the online registration system. Internships and independent studies will be registered by the Registrar once the appropriate paperwork has been completed.

## Fall Term 2023-24 Undergraduate Course List

As of 8/3/23 (Independent Study and Internship courses not listed).

| Course | Description | Credits | Instructor |
| :---: | :---: | :---: | :---: |
| Bio122 | Introduction to Biology: Genetics and Evolution | 3 | Bryntesson, A. Fredrik |
| Bio122 | Introduction to Biology: Genetics and Evolution | 3 | Bryntesson, A. Fredrik |
| Bio122L* | Introduction to Biology: Genetics and Evolution Lab (W) | 1 | McMackin, Grace Rose |
| Bio122L* | Introduction to Biology: Genetics and Evolution Lab (W) | 1 | McMackin, Grace Rose |
| Bio122L* | Introduction to Biology: Genetics and Evolution Lab (W) | 1 | Evans, Stella R. |
| Bio210 | Human Anatomy and Physiology I | 3 | Higgins, Ed |
| Bio210L* | Human Anatomy and Physiology I Lab | 1 | Higgins, Ed |
| Bio355 | Cancer Biology | 3 | Bryntesson, A. Fredrik |
| Bio373* | Biological Laboratory Techniques: Molecular Biology | 2 | Evans, Stella R. |
| Bio373* | Biological Laboratory Techniques: Molecular Biology | 2 | Evans, Stella R. |
| Bio490 | Biology Seminar I (IL) | 1 | Evans, Stella R. |
| Bus/Wrt220 | Business Communications (W) | 3 | Rogers, Elizabeth |
| Bus141 | Accounting I | 3 | King, Ethan |
| Bus254 | Principles of Marketing | 3 | Lermitte, Kayne |
| Bus290 | Internship Preparation Seminar | 1.5 | Douglas, Adele |
| Bus320 | Financial Management (QR) | 3 | Waltrich, Christopher |
| Bus351 | Introduction to Business Law | 3 | Rogers, Elizabeth |
| Bus493 | Senior Literature Review | 2 | King, Ethan |
| Bus494 | Senior Seminar I | 1 | Synnestvedt, Dan |
| Bus495 | Senior Capstone Project (WC) | 2 | Rogers, Elizabeth |
| Bus496 | Senior Seminar II | 1 | Rogers, Elizabeth |
| Chem101* | Introduction to Chemistry | 3 | McMackin, Grace Rose |
| Chem210 | Organic Chemistry I | 3 | DeLuca, Giovanni L |
| Chem210L* | Organic Chemistry I -Lab | 1 | Higgins, Ed |
| Chem210L* | Organic Chemistry I -Lab | 1 | McMackin, Grace Rose |
| Comm105 | Public Speaking (PP) | 3 | Pine, Ryan E. |
| Comm130 | Foundations of Graphic Design | 3 | Mill, Carl |
| CSci105 | Introduction to Computer Systems | 3 | Walls, Michael |
| Dan160/260/360+ | Dance Ensemble (EE) | 1.5 | Bostock, Jessica |
| Dan234 | Ballet (EEc) | 3 | Bostock, Jessica |
| Dan493 | Senior Literature Review | 2 | Bostock, Jessica |
| Econ132 | Microeconomics (QR) | 3 | King, Ethan |
| Ed217 | Language, Literacy, and Numeracy | 3 | Phillips, Nina Gunther |
| Ed271 | Introduction to Early Childhood Education | 3 | Phillips, Nina Gunther |
| Ed324 | Science and the Young Child | 3 | Rose, Angela N . |
| Ed333 | Seminar on Art and Creative Expression | 2 | Staff, |
| Eng245 | Children's Literature | 3 | Glenn, Thane |
| Eng365 | Literature as Social Lens | 3 | King, Kristin |
| EnSci105 | Introduction to Sustainability | 3 | Potapov, Eugene R. |
| EnSci105L* | Introduction to Sustainability | 1 | Potapov, Eugene R. |
| EnSci105L* | Introduction to Sustainability | 1 | Potapov, Eugene R. |
| FA101 | Art History: Caves to Cathedrals (IL) | 3 | Kline, Jonathan D. |
| FA122* | Forging | 3 | McDonah, Tedd |
| FA128 | Stained Glass I | 3 | DaCrema, Elizabeth T. |
| FA130* | Ceramics | 3 | Orthwein, Christina |


| FA232 | Computer Assisted Design | 3 | Staff, |
| :---: | :---: | :---: | :---: |
| FA/Hist271 | Introduction to Historic Preservation | 3 | Staff, |
| FE1 | Field Experience I: Observation | 2.5 | Rose, Angela N. |
| FESpEd | Field Experience in Special Education | 3 | Wong, Sarah |
| Geog110 | World Regional Geography | 3 | Yardumian, Aram |
| Hist114 | The Classical World (IL) | 3 | Closterman, Wendy |
| Hist205 | Topics in African American History: The Harlem | 3 | Biney-Amissah, Chade |
| Hist355 | Reacting to the Past: Revolution | 3 | Rose, D. Greg |
| HSoc401 | Capstone Seminar I (IL) | 3 | Yardumian, Aram |
| Math095 | Preparation for Quantitative Reasoning | 1 | Genzlinger, Maret |
| Math101 | Introduction to Quantitative Reasoning (QR) | 3 | Simonetti, Neil |
| Math101 | Introduction to Quantitative Reasoning (QR) | 3 | Staff, |
| Math150 | Calculus I | 3 | Bongers, Caira |
| Math150L | Calculus I Lab | 1 | Bongers, Caira |
| Math270 | Formal Mathematical Reasoning | 3 | Bongers, Caira |
| Math493 | Senior Literature Review | 2 | Simonetti, Neil |
| Mus100 | College Chorale | 1 | Bier, Graham |
| Phil/PS220 | Political Thought (Civil) | 3 | Synnestvedt, Dan |
| Phil102 | Introduction to Philosophy (Worldview) | 3 | Latta, Marcy |
| Phil342 | Ethics and Computing Technology (moral) | 3 | Synnestvedt, Dan |
| PSci211 | Comparative Government (Civil) | 3 | Rose, D. Greg |
| Psyc101 | Introductory Psychology | 3 | Castro, Sofia |
| Psyc105 | Topics in Psychology: Memory and your Brain | 3 | Castro, Sofia |
| Psyc204 | Human Development: Lifespan | 3 | Castro, Sofia |
| Psyc341 | Human Development: Adult Altruism (EE)(Moral) | 3 | Nash, Laura |
| Psyc490 | Capstone Seminar 1 (IL) | 3 | Cavallo, Fernando |
| Rel101 | Introduction to New Church Doctrines (SpDoc) | 3 | Schnarr, Grant |
| Rel101 | Introduction to New Church Doctrines (SpDoc) | 3 | Glenn, Thane |
| Rel101 | Introduction to New Church Doctrines (SpDoc) | 3 | Silverman, Ray |
| Rel101 | Introduction to New Church Doctrines (SpDoc) | 3 | Glenn, Coleman |
| Rel101 | Introduction to New Church Doctrines (SpDoc) | 3 | Schnarr, Grant |
| Rel101 | Introduction to New Church Doctrines (SpDoc) | 3 | Staff, |
| Rel110 | Introduction to Systematic Theology (SpDoc) | 3 | Frazier, Scott Innes |
| Rel210 | Divine Providence and Human Prudence (IL) (SpDoc) | 3 | Genzlinger, Matthew |
| Rel220 | The Torah (SpScript) | 3 | Frazier, Scott Innes |
| Rel372 | Spiritual Development for Educators (SpAppl)(W) | 3 | Silverman, Ray |
| Rel380 | History of New Church Doctrine (IL)(SpAppl) | 3 | Cole, Stephen |
| Soc110 | Introduction to Sociology | 3 | Ballard, Kelly M. |
| Span101 | Introductory Spanish I | 3 | Diaz, Elena |
| SpEd111 | Introduction to Special Education | 3 | Wong, Sarah |
| SpEd331 | Classroom Management and Behavioral Support | 3 | Staff, |
| SpEd334 | Assistive Technology in the Classroom | 1 | Larcher, Elizabeth Ann |
| Thea120 | Scene Design (EE) | 3 | Haus-Roth, Naomi |
| Writ100 | Academic Writing | 3 | Cooper, Robin |
| Writ101 | Expository Writing (W) | 3 | Hoffman, Chandra |
| Writ101 | Expository Writing (W) | 3 | McKee, Ellen B. |
| Writ202 | Writing About Literature (W) (IL) | 3 | Cooper, Robin |
| Writ202 | Writing About Literature (W) (IL) | 3 | Pine, Ryan E. |

+This course is offered on multiple levels. All students must register on the 100 level.
*This course requires a lab fee.

## Fall Term 2023-24 Undergraduate Courses

## Biology

Environmental Science 105. Introduction to Sustainability.
Introductory cross-disciplinary study of the principles of sustainability in the modern world. Topics include: the limits to economic growth, demography and its constraints on economics, ecological implications of human population growth, limits of energy consumption and production, and ecological principles in the modern world. This course and the related laboratory must be taken together.
3 Credits.

Environmental Science 105 Lab. Introduction to Sustainability Lab.
This course requires a lab fee. This course and the related lecture course must be taken together.
1 Credit.

## Biology 122. Introduction to Biology: Genetics and Evolution.

The first of a two-course gateway series that is required for prospective biology majors. Introduction to principles of genetics and evolution. Includes evolution, natural selection, cell division and the cell cycle, chromosomes, Mendelian and non-Mendelian inheritance, the Hardy-Weinberg principle, how selection, migration and genetic drift influence evolution, kin selection, mechanisms of speciation, and the last common ancestor and the tree of life. The course concludes with a section on development and evolution. This course and the related laboratory must be taken together.
3 Credits.
Biology 122 Lab. Introduction to Biology: Genetics and Evolution Lab.
This course requires a lab fee. This course and the related lecture course must be taken together.
1 Credit.

Biology 210. Human Anatomy and Physiology I.
First trimester of a two-trimester sequence dealing with the structure and function of the human body and mechanisms for maintaining homeostasis within it. Includes the study of cells, tissues, fluid and electrolyte balance, acid-base balance and integumentary, skeletal, muscular and nervous systems. Identification of anatomical structures using a "virtual" cadaver and preserved animal specimens will be required in the laboratory. This course and the related laboratory must be taken together.
Prerequisites: High School Chemistry and Biology 122, 122L, 123, and 123L.
3 Credits.
Biology 210 Lab. Human Anatomy and Physiology I Lab.
This course requires a lab fee. This course and the related lecture course must be taken together.
1 Credit.

## Biology 355. Cancer Biology.

This course provides an overview of the biology of cancer with an emphasis on molecular mechanisms that underlie this disease. Course topics include a general description of what cancer is; the cell cycle, growth factors and growth factor receptors and how they are related to cancer, cellular signaling mechanisms, tumor suppressors and oncogenes, apoptosis and how cancer cells evade apoptosis, the importance of cell
immortalization in cancer, the multistep features of cancer development, heterotypic interactions, angiogenesis, how cancer cells spread from the primary tumor to form secondary tumors, and cancer therapies.
Prerequisites: Biology 230 and Biology 232.
3 Credits.
Biology 373. Biological Laboratory Techniques: Molecular Biology.
Junior level biology laboratory course supporting Biology 230, 232, 310, 315, and 355. A mixture of theoretical and practical experience in techniques used in molecular biology, including PCR and cell-based cloning, nucleic acid hybridization, bioinformatics, protein expression and analysis, and culturing microbiological organisms. Laboratory reports, lab notebooks, and scientific writing skills integral. This course requires a lab fee.
Co-requisites or prerequisites: Biology 230 and Biology 232.
2 Credits.
Biology 490. Biology Seminar I. (IL)
Broadened exposure to active areas of biology and reading current literature. Students are required to read and present current literature related to their senior projects. Required of seniors in the biology major and open to seniors in the ID major who are studying biology.
Prerequisite: Biology 380.
1 Credit.

## Business

Business/Writing 220. Business Communications. (W)
Business Communications is a workplace-oriented course designed to help students develop and refine the written and oral skills necessary to communicate effectively in professional settings. Students will review the purpose and style of business writing and complete a variety of focused writing exercises based on work settings and scenarios. Students will plan, compose, and analyze letters, memoranda, and electronic messages. They will also prepare and deliver brief oral presentations, collaborate with others, and revise business communication.
Prerequisite: Writing 101.
3 Credits.

## Business 141. Accounting I.

Introduction to basic financial accounting principles, the accounting cycle, the preparation of financial statements, and the use of computer spreadsheets.
3 Credits.

## Business 254. Principles of Marketing.

Focus on customer behavior, promotion, channels of distribution, product, and pricing, with emphasis on formulating marketing plans and strategies in a global and culturally diverse environment.
3 Credits.
Business 290. Internship Preparation Seminar.
This course will introduce the requirements for internships, including the learning plan, journal entries, final projects, and relation to academic study. Students will learn employment related skills including: networking, interviewing, resume creation, attendance requirements, professional appearance, professional conduct, confidentiality, and maintaining ongoing relationships. May not be repeated for credit. No prerequisite required.

### 1.5 Credits.

Business 320. Financial Management. (QR)
Introduction to business finance, the role of the chief financial officer, and financial tools used by management. Emphasis on management of revenue and expenses, application of basic financial concepts to the solution of organizational problems, analysis of the short and long-term financial needs of an organization, and selection of most feasible course of action to secure best possible financial outcome and allocation of resources. Topics of present value, stock and bond valuation, capital budgeting, financial forecasting, and capital structures also examined.
Prerequisite: Business 141.
3 Credits.
Business 351. Introduction to Business Law.
Legal enforcement of obligations and the function of law in modern business. The establishment and enforcement of contractual obligations. The establishment of an agency relationship and its effect on third parties.
3 Credits.
Business 493. Senior Literature Review.
General guidance in continuing research and review literature related to the chosen topic for the senior capstone project, Support for crafting a sound and interesting argument, resulting in an outline of main points for the project.
Prerequisite: Business 390 .
2 Credits.

## Business 494. Senior Seminar I.

For seniors in the Business Major. Focus on developing a spiritual perspective on the student's capstone project using Swedenborgian and other principles.
Prerequisite: Business 390 .
1 Credit.

Business 495. Senior Capstone Project. (WC)
Capstone experience for the Interdisciplinary Major. Writing of the senior project based on the research and outline produced in Business 493.
Prerequisites: Business 493 and Business 494.
2 Credits.

Business 496. Senior Seminar II.
For seniors in the Business Major. Public presentation of senior project. Career planning and portfolio development. Pass/Fail.
Prerequisite: C- or better in Business 495.
1 Credit.

## Chemistry

Chemistry 101. Introduction to Chemistry.
Introduction to college chemistry. Course designed with two audiences in mind-students preparing for general chemistry, and non-science majors. No prior chemical knowledge assumed, but mathematical skills equivalent to Mathematics 100 expected. Topics covered include atomic theory, organization of matter, the mole concept, naming of chemical compounds, chemical bonding and reactions, phases of matter, and kinetics. Required of students who register for Chemistry 110 and have a math SAT score of 500 or lower (or
the equivalent ACT score). This course has an associated laboratory that is not necessarily offered every time the course is offered. When taken together, they satisfy the Core science requirement. This course alone will not fulfill the requirement.
3 Credits.

## Chemistry 210. Organic Chemistry I.

Second year chemistry course for science majors. Topics include molecular orbital and hybrid orbital theory and bonding, chemical energetics, alkanes, alkenes, halo alkanes, alcohols, alkynes, dienes, stereochemistry, and classes of reactions and reaction mechanisms. Laboratory includes basic techniques in organic chemistry and computer based molecular modeling. First half of sequence with Chemistry 211. This course and the related laboratory must be taken together.
Prerequisite: Chemistry 111 and 111L.
3 Credits.

Chemistry 210 Lab. Organic Chemistry I Lab.
Includes basic techniques in organic chemistry and computer based molecular modeling. This course requires a lab fee. This course and the related lecture course must be taken together.
Prerequisite: Chemistry 111 and 111L.
1 Credit.

## Communication

Communication 105. Public Speaking. (PP)
Exposure to a variety of speaking situations designed to develop self-confidence. Class work features impromptu and prepared speeches. Work on voice and speech improvement as well as command of body language. Attention to effective strategies for professional presentations and public speaking, both face-toface and online.
3 Credits.
Communication 130. Foundations of Graphic Design.
Introductory study of how to create and communicate graphic ideas effectively. Covers elements of design, spatial relationships, typography, and imagery as they apply to graphic communication for print and web. Students will develop graphic design skills (the ability to solve visual communication problems) by integrating Adobe Creative Suite software skills and foundational design concepts. Software instruction in basics of such programs as InDesign, Illustrator, and possibly Photoshop.
3 Credits.

## Computer Science

Computer Science 105. Introduction to Computer Systems.
Discussion of how computers and networks work; introduction to web page construction with HTML; introduction to programming with Python; introduction to spreadsheet and database design and queries. 3 Credits.

## Dance

## Dance 134/234. Ballet.

Beginner (Dance 134) and Intermediate (Dance 234) course in ballet technique. Introduction to and development of the fundamentals of ballet technique and vocabulary, emphasizing alignment, stretching and strengthening, flexibility, kinesthetic awareness, line and movement phrases. This course culminates in a final performance. Course may be repeated once for credit.
Prerequisite for Dance 234: Dance 120, Dance 134, or instructor's permission. Also serves as a PE course. 3 Credits.

Dance 160/260/360. Dance Ensemble. (EE)
A dance repertory course for the performing artist. Rehearsing and performing pieces choreographed by faculty and guest artists. Styles may include contemporary, jazz, hip-hop, ballet, and/or tap. Each student will be involved in several different pieces of choreography. Course culminates in public performance. Dance 260 includes collaboration on a choreography project or a solo choreography project. Dance 360 involves choreographing and teaching a group piece of choreography to the class to be performed at the end of term concert. Course may be repeated for credit.
1.5 Credits.

Dance 493. Senior Literature Review.
General guidance in continuing research and review literature related to the chosen topic for the senior essay. Support for crafting a sound and interesting argument, resulting in an outline of main points for the senior essay.
Prerequisite: Interdisciplinary Studies 390.
2 Credits.

## Economics

Economics 132. Microeconomics. (QR)
Study of the fundamentals of economic analysis with particular emphasis upon consumer demand behavior and the output and pricing decisions of business firms under various market structures. Special attention given to the role of ethics in the behavior of business executives and consumers. Consideration of current issues such as health care, energy policy, and government intervention in the market. Course includes studentled seminars and group projects.
3 Credits.

## Education

Education 217. Language, Literacy, and Numeracy.
This course prepares students for their role in the early childhood classroom. Special attention given to emergent language and language-rich environments; the preconditions for developing literacy; and number sense as a foundation for mathematics. Includes 1 credit hour of ELL instruction.
3 Credits.

## Education 271. Introduction to Early Childhood Education.

This course focuses on the basic knowledges, skills and dispositions that prepare students to teach in early childhood classrooms. Teaching young children from a background of New Church spiritual philosophy, major theories and cultural perspectives. Emphasis on DAP (developmentally appropriate practice); integration of learning goals with children's play; diversity in the classroom; and the process of building a collaborative model with family and community. Includes theory and practice of Garden-based Learning. 3 Credits.

Education 324. Science and the Young Child.
This course explores the nature of science, the nature of how young children conceptualize the world around them, and how to bring the study of the natural world to children in age-appropriate ways. Emphasis on the inquiry approach to teaching science. Includes garden-based learning projects: planting a fall garden and sprouting seeds.
3 Credits.
Education 333. Seminar on Art and Creative Expression.*
Concepts related to creativity in the arts and the many media areas used by children to express themselves are introduced. Topics include: concepts of creativity; facilitation of children's creative expression; appreciation of children's art processes and products. Particular attention to musical expression.
Prerequisites: Education 128 or 271.
2 Credits.
Field Experience I: Observation.
Students will be assigned to a classroom for guided observation experience that relates to course work during the third year. Open to non-majors with permission from education department chair.
2.5 Credits.

## Field Experience: Special Education.

This pre-student teaching course provides students the opportunity to observe in a special education setting and apply the knowledge and skills they have learned in their coursework. Students will gain hands-on experiences working with students who learn differently, be exposed to the various types and levels of service delivery, and have opportunities to reflect on how, when, and why specific evidence-based practices are implemented. Students will start in the observational phase and gradually take on increased instructional responsibilities throughout the term.
Prerequisites: Special Education 111 and permission of the instructor. Not open to non-majors; third- or fourth-year students only.
3 Credits.

Special Education 111. Introduction to Special Education.
This course addresses an overview of key concepts, theories, and practices in special education. The course begins with a role-playing game (Reacting to the Past) in which students learn about the milestone legislation, IDEA, and special attention is given to the social and historical underpinnings of today's special education programming. Students learn to view "disability" and related concepts from varying perspectives and gain an appreciation for the range of needs expressed in the human condition.
3 Credits.

Special Education 331. Classroom Management and Behavioral Support.
Examination of what it means to lead and manage a differentiated classroom. Addresses classroom management skills of fostering a positive learning environment; planning and delivering assessment-driven instruction. Implementing Positive Behavior Intervention and Support (PBIS) and conducting a Functional Behavioral Analysis (FBA) will be highlighted.
3 Credits.
Special Education 334. Assistive Technology in the Classroom.
This course explores a variety of technologies used to assist persons with a wide range of exceptionalities. Universal Design for Learning is at the core of this course with a goal of adapting technology, instruction, and assessment to meet a range of student needs.

Prerequisites: Special Education 111 and permission of the education department chair.
1 Credit.

## English

Literature courses in this discipline fill the aesthetic requirement of the Core Program. 200-level English courses require Writing 101 as prerequisite. 300+-level English courses require a 200-level English as prerequisite.

## English 245. Children's Literature.

Study of the textual characteristics of children's literature and the role this literature has played historically. Picture books, readers, stories, and adventure novels. May include authors such as Caxton, Grimm, MacDonald, Milne, and New Church writers. Written work includes projects and a children's story reflecting the trends studied.
Prerequisite: Writing 101.
3 Credits.

English 365. Literature as Social Lens.
Analysis of the ways selected works of literature (primarily novels) from the past two centuries both reflect and critique the social values and customs of their time. The concept of 'lens' implies that we are limited by particular perspectives but also that literature can focus and strengthen vision. Emphasis on reading, discussion, research, and writing.
Prerequisite: Any 200-level English course.
3 credits.

## Experiential Education

## Experiential Education 198/298. Internship. (EE)

The internship course is open to students with a 2.5 GPA or above. It is a supervised, pre-professional experience with clear links to a student's academic program. It is conducted primarily or totally outside a regular course classroom, and for which a student earns academic credit. It is organized primarily around an assignment in a work-place situation in which students working under the direction of a supervisor learn hands-on professional skills.
The internship course requires a syllabus, reflective component, and an analytical component (e.g., essay, paper, or presentation). Individual syllabi are retained on the college drive. This course satisfies the EE requirement.
Course may be repeated for academic credit by arrangement.
Credit variable.

## Fine Arts

Fine Arts 101. Art History: Caves to Cathedrals (IL).
Introductory survey of art and architecture from Prehistory through the European Middle Ages, including Ancient Near Eastern, Egyptian, Greek, Roman, Late Antique, and Medieval art. This course also serves as an introduction to the methods and practices of Art History as an academic discipline. Classroom study is complemented by visits to Glencairn Museum.
3 Credits.

Fine Arts 122. Metal Forging.
Introduction to artistic ironwork concentrating on hand-forged, wrought iron using traditional techniques. Inspired by the magnificent examples in Glencairn and Bryn Athyn Cathedral.
This course requires a lab fee.
3 Credits.
Fine Arts 128. Stained Glass I.
Introduction to stained glass techniques, including cutting and cold-shaping of glass, panel design, painting on glass, copper foil and leading techniques. Projects include study of and response to examples in the Glencairn Museum and Bryn Athyn Cathedral.
3 Credits.
Fine Arts 130. Ceramics.
Introduction to clay work including hand building, wheel throwing, slip casting, glazing, and firing processes.
Also form function and representation.
This course requires a lab fee.
3 Credits.

Fine Arts 232. Computer Assisted Design.
An introduction to two-dimensional computer aided drawing using AutoCAD and three-dimensional drawing using SketchUp. The course covers basic commands, file maintenance, creation of 2D drawings, isometric views and plotting. Student acquire the skills necessary to draw basic mechanical parts and architectural diagrams.
3 Credits.

## Fine Arts/History 271. Introduction to Historic Preservation.

This course will introduce students to the basic theory and practice of historic preservation. Major topics include preservation terminology and concepts, architectural styles, and the history of the preservation movement in the United States, including advocacy, government's role in historic preservation, and emerging/contemporary issues in historic preservation. The Bryn Athyn Historic District and other historic structures in the local community will be used extensively as illustrations for topics throughout the course. This is not a methods and materials conservation course. Material is presented through lectures, guest lectures, class discussion and field trips.
3 Credits.

## Geography

Geography 110. World Regional Geography.
Study of world regions with emphasis on the geographic relationships-physical and cultural-that give them their character. Emphasizes the political and cultural formations of human societies. Focus on familiarity with map locations.
3 Credits.

## History

History 114. The Classical World. (IL)
Historical survey of ancient Greece and Rome from Mycenaean civilization to the fall of the Roman Empire in the west. Particular attention to cultural values, political trends, and the role of religion in Greek and

Roman societies. Examination of textual and archaeological evidence. Guided development of a research paper.
3 Credits.

History 205. Topics in African American History: The Harlem Renaissance
This course is a study of the cultural movement referred to by historians as the Harlem Renaissance (c. 1919-
1929) and considers the significance and lasting impact of its writers, artists, and activists on contemporary culture. Emphasis on historical investigation and analysis of aesthetic works.
3 Credits.

## History 355. Reacting to the Past: Revolution

Students take part in two historical role-playing games informed by classic texts: the restoration of democracy in Athens, 403 B.C. and the events in the Paris of 1791 during the French Revolution. Focus on developing skills-speaking, writing, critical thinking, problem solving, leadership, and teamwork- in order to prevail in elaborate and complicated simulations.
3 Credits.

## Human Society

Human Society 401. Capstone Seminar. (IL)
Students in the Human Society major engage in focused research for their capstone projects. The seminar setting provides instruction in related skills and offers a forum for support and the exchange of ideas. As part of the seminar, each student will generate a written research proposal, which will also be presented publicly. Each student also examines in depth a specific New Church concept related to the student's capstone project. Only open to Human Society majors. 3 Credits.

## Independent Studies and Honors Contracts

In addition to the listed courses, departments may offer independent studies and honors contracts at the 200level or above in a variety of fields. The purpose of these is to allow well-qualified students to study beyond the regularly offered courses. Independent studies are numbered 299 or 399 , depending on the appropriate level, and honors contract courses are designated with a trailing H, such as Math205H. Academic departments are under no obligation to meet requests for independent studies and honors contracts. Students who undertake independent studies must be able to work independently between meetings with the instructor. In order to qualify to take an independent study or honors contract, a student must:

- Have completed at least 31 credits with a GPA of 2.7 or better
- Submit a proposal to the department chair during the week prior to registration for the term in which the independent study or honors contract is to occur.
- Submit an independent study card or honors contract card (signed by the department chair and instructor) to the College Office to be reviewed by the Dean of Academics.
- Create a syllabus together with the instructor and submit it to the College Office before or during registration.


## Internships

298/398/498 Internships (in their academic areas) (EE)
Individually arranged career related internships. See the Major Department Head or Director of Internships for details.
3 Credits.

## Mathematics

Mathematics 095. Preparation for Quantitative Reasoning.
This course provides additional support for students enrolled in Math101. Topics include translating expressions, building equations, order of operations, and recognizing context. Credit from this course may not be used to satisfy degree requirements.
1 Credit.

Mathematics 101. Introduction to Quantitative Reasoning. (QR)
Introduction to mathematical concepts to improve basic skills in computation, algebra, graphing, and quantitative applications. This course prepares students for other mathematics courses and courses involving quantitative reasoning. Topics include linear modeling, units of measure and currency, and statistical reasoning, and financial topics.
3 Credits.
Mathematics 150. Calculus I.
Limits, differentiation, maxima-minima, related rates, Riemann sums, integration with applications, fundamental theorem of calculus, transcendental functions. Because of duplication of subject matter, students may not receive credit for both Mathematics 140 and Mathematics 150.
Prerequisite: B- or better in Mathematics 120 or Mathematics 124 or appropriate score on SAT or placement test.
4 Credits.

Mathematics 270. Formal Mathematical Reasoning.
An introduction to logical deductive reasoning and mathematical proof techniques in higher mathematics.
Techniques include direct proof, contradiction, and induction. Topics include set theory and number theory. Emphasis throughout is on the communication of mathematics and developing abilities in proof writing. Prerequisite: Mathematics 150.
3 Credits.

## Mathematics 493. Senior Literature Review.

General guidance in continuing research and review literature related to the chosen topic for the senior essay. Support for crafting a sound and interesting argument, resulting in an outline of main points for the senior essay.
Prerequisite: Mathematics 390 or Interdisciplinary Studies 390.
2 Credits.

## Music

Music 100. College Chorale.
Development and performance of choral repertoire from Renaissance to Modern. Instruction in the development of vocal techniques. Course may be repeated for credit.

## Philosophy

Philosophy 102. Introduction to Philosophy. (Worldviews)
Survey of some major philosophers and theories in metaphysics, epistemology, and the philosophy of religion.
3 Credits.

Philosophy/Political Science 220. Political Thought. (Civil)
A consideration of political thinkers and theories, both ancient and modern, along with perennial issues in politics, such as justice, authority, liberty, order, equality, power, law, and forms of government. Strongly recommended: Philosophy 101.
Prerequisite: Philosophy 102.
3 Credits.
Philosophy 342. Ethics and Computing Technology. (Moral)
Topics considered include privacy, freedom of speech, cybercrime and security, intellectual property, error and risk, artificial intelligence, evaluating technology. Overview of normative ethical theories. Application of ethical theories and professional codes to real cases.
Prerequisite: Phil. 102 (or permission of instructor)
3 Credits.

## Political Science

Political Science 211. Comparative Government. (Civil)
Introduction to the comparative study of the politics of nations. Examines the underlying principles, machinery, and effectiveness of selected governments around the world, and ramifications for their societies. 3 Credits.

Philosophy/Political Science 220. Political Thought. (Civil)
A consideration of political thinkers and theories, both ancient and modern, along with perennial issues in politics, such as justice, authority, liberty, order, equality, power, law, and forms of government. Strongly recommended: Philosophy 101.
Prerequisite: Philosophy 102.
3 Credits.

## Psychology

Psychology 101. Introductory Psychology.
Introduction to basic constructs of psychology including scientific methodology, the brain, consciousness, memory, identity, learning, motivation, intelligence, and the nature of mental illness. Relevant New Church doctrines analyzed and compared to secular theories of psychology.
3 Credits.

Psychology 105. Topics in Psychology: Memory and your Brain
This course explores behavioral processes, brain substrates, and clinical perspectives related to memory and learning. It investigates such topics as the neuroscience of learning and memory, different types of memory, emotional influences on learning and memory, social learning, and memory across the lifespan. 3 Credits.

Psychology 204. Human Development: Lifespan.
Examination of biological, cognitive, and psychosocial development from conception through death. Review of theories and research pertaining to prenatal, infant, child, adolescent, and adult development, as well as aging and dying. Focus on both constancy and change as well as the interaction of biological and environmental factors.
Prerequisite: Psychology 101 or department chair permission.
3 Credits.

Psychology 341. Altruism. (EE, Moral)
Exploration of psychological theories about moral development, character strengths, altruism, optimism, flourishing, flow, generosity and spiritual maturity. Major emphasis on the states of adults over 18 years of age. Examination of Swedenborgian doctrinal principles regarding adult human development: regeneration, opening of the rational mind, developing a new will, acquiring wisdom, and leading a life of useful service to the neighbor. Ethical reasoning skills emphasized.
3 Credits.
Psychology 490. Senior Capstone Seminar 1 in Psychology. (IL)
First capstone course for the psychology major. The investigation of psychology as a science with a focus on the qualitative and quantitative approaches to research in the area of psychology. It examines strategies for establishing validity in descriptive, relational, and experimental design in the framework of ethical research. Emphasis will be placed on critical reading and analysis of previously published scientific research. Students receive practice in designing, conducting, analyzing, interpreting the results of research studies, and writing reports in APA style. Students prepare proposal for Senior Essay.
Prerequisites: Psychology 101 and Mathematics 130. Students must be accepted psychology majors. 3 Credits.

## Religion

## Religion 101. Introduction to New Church Doctrines. (Doctrinal)

Foundation course. Basic survey of the doctrines of the New Church. Presupposes little or no formal background in the study of the doctrines.
3 Credits.

Religion 110. Introduction to Systematic Theology. (Doctrinal)
A comprehensive overview of New Church doctrine. Emphasis on core doctrines of the Lord, faith and charity, the Word, the afterlife, the mind, Divine providence, judgment, marriage, and repentance.
Presupposes a moderate familiarity with New Church teachings.
3 Credits.
Religion 210. Divine Providence and Human Prudence. (IL, Doctrinal)
The laws and fundamental principles by which the Lord governs creation. How the Lord removes evil from people while preserving their freedom. How the Lord brings good out of evil. Eternal life as the goal of
providence. How providence uses natural conditions to serve this end. Why providence operates in secret. Text: Divine Providence.
3 Credits.

## Religion 220. The Torah. (Scriptural)

Detailed study of Genesis to Deuteronomy in their historical and cultural context. Discussion of translations, certain critical theories, and other related ideas. Treatment of the literal meaning in relation to its higher meanings and other doctrinal considerations.
3 Credits.

## Religion 372. Spiritual Development for Educators (W, Applied)

This course is primarily designed for educators who are currently (1) working in an elementary or secondary school setting, or (2) planning to work in an educational setting. Each week, students will have the opportunity to reflect on the many challenges that come up within educational settings that prevent them from being the loving, wise, and useful educators they hope to be. Each week, students will have the opportunity to reflect on their feelings, thoughts, and actions in the light of one of the Ten Commandments and, when appropriate, share their experiences with classmates.
Prerequisite: Students must be juniors or seniors majoring in education
3 Credits.
Religion 380. History of New Church Doctrine. (IL, Applied)
Survey of the development of doctrinal thought in the history of the New Church. Considerations of various and divergent interpretations. The evolution of ideas and their impact on the Church. Reflection on the intellectual heritage of the Church from an historical perspective. Extensive research in New Church collateral literature.
3 Credits.

## Sociology

Sociology 110. Introductory Sociology.
Introduction to the discipline of sociology and a sociological perspective for understanding human behaviors and the structure of human societies. Discussions apply a sociological perspective to topics such as social class, gender, race and ethnicity, culture, work, and social movements in order to understand how individual lives and social groups are shaped by social structures, cultural understandings and distributions of power. 3 Credits.

## Spanish

Spanish 101. Introductory Spanish I.
Introduction to the Spanish language for students without previous experience. Emphasis is placed on communication and the foundations of Spanish grammar. Spanish is the language of instruction. 3 Credits.

## Theater

Theater 120. Set Design and Production. (EE)
Hands-on introduction to scene design and production. Overview of the elements of scene design with emphasis on the process of designing a set. Research, sketching, drafting, model building, color application, and actual set construction within a budget. Students required to understand and use all of the equipment in
the theater as it pertains to the design and will work with the play's director using the Mitchell Performing Arts Center as the classroom and will participate as a member of the run-crew for the winter Bryn Athyn College production. Final project involves the construction of the actual set. Course may be repeated once for credit.
Credit variable.

## Writing

Writing 100. Academic Writing.
Development of academic writing skills in preparation for Writing 101. Intensive grammar and punctuation instruction and practice, in conjunction with an introduction to the structure and process of academic writing. Required for provisionally-admitted first-year students before advancement to Writing 101.
3 Credits.
Writing 101. Expository Writing. (W)
Development of informative, analytic, and persuasive writing. Emphases on grammatical control, precision of language, consideration of audience, rhetorical strategies, revision, information literacy, and articulation, development, and support of thesis. Three to four formal essays, including substantial revision work. Individual conferences with instructor to discuss students' writing. Required of first year students. Non-native speakers who want to take Writing 101 in their first year need permission of the Language and Literature department chair.
3 Credits.
Writing 202. Writing About Literature. (W, IL)
Second-year requirement of all students. Analytic study of 3 or more literary genres, with emphases on writing and research. Assumes basic skills in writing and information literacy covered in Writing 101. Three formal essays, including substantial revision. One longer essay and its accompanying research process require locating, evaluating, and incorporating multiple secondary sources. Individual conferences with instructor to discuss students' writing. Required of second-year students. Dean's permission required for deferral to third year.
Prerequisite: Writing 101.
3 Credits.

## Winter Term 2023-24 Undergraduate Course List

As of $8 / 3 / 23$. (Independent Study and Internship courses not listed).

| Course | Description | Credits | Instructor |
| :---: | :---: | :---: | :---: |
| Anth213 | Archaeology and World Pre-History | 3 | Yardumian, Aram |
| Anth320 | Genocide | 3 | Yardumian, Aram |
| Bio123 | Introduction to Biology: Molecular Biology | 3 | Bryntesson, A. Fredrik |
| Bio123L* | Introduction to Biology: Molecular Biology Lab | 1 | McMackin, Grace Rose |
| Bio123L* | Introduction to Biology: Molecular Biology Lab | 1 | McMackin, Grace Rose |
| Bio220 | Human Anatomy and Physiology II | 3 | Higgins, Ed |
| Bio220L* | Human Anatomy and Physiology II Lab | 1 | Higgins, Ed |
| Bio222 | Introduction to Kinesiology | 3 | Staff, |
| Bio245 | Zoology | 3 | Potapov, Eugene R. |
| Bio245L* | Zoology Lab | 1 | Potapov, Eugene R. |
| Bio492 | Biology Seminar III | 1 | Bryntesson, A. Fredrik |
| Bio495 | Senior Project (WC) | 3 | Evans, Stella R. |
| Bus142 | Accounting II | 3 | Waltrich, Christopher |
| Bus256 | Principles of Sales | 3 | Swiski, Mark D. |
| Bus267 | Introduction to Sports Management | 3 | Shute, Dick |
| Bus301 | Business Ethics (Moral)(PP) | 3 | King, Ethan |
| Bus301 | Business Ethics (Moral)(PP) | 3 | King, Ethan |
| Bus305 | Business Seminar | 1.5 | King, Ethan |
| Bus495 | Senior Capstone Project (WC) | 2 | Rogers, Elizabeth |
| Bus496 | Senior Seminar II | 1 | Rogers, Elizabeth |
| Chem110 | General Chemistry I | 3 | Higgins, Ed |
| Chem110L* | General Chemistry I -Lab | 1 | Evans, Stella R. |
| Chem110L* | General Chemistry I -Lab | 1 | McMackin, Grace Rose |
| Chem211 | Organic Chemistry II | 3 | Higgins, Ed |
| Chem211L* | Organic Chemistry II: Lab | 1 | Higgins, Ed |
| Comm105 | Public Speaking (PP) | 3 | Pine, Ryan E. |
| CSci180 | Structured Programming | 3 | Simonetti, Neil |
| CSci206 | Introduction to Data Science | 3 | Simonetti, Neil |
| Dan120 | Dance Technique | 3 | Bostock, Jessica |
| Dan495 | Senior Essay (WC) | 2 | Bostock, Jessica |
| Econ131 | Macroeconomics (QR) | 3 | Staff, |
| Ed272 | Child Development: Birth to Age Nine | 3 | Rose, Angela N . |
| Ed323 | Math and the Young Child | 3 | Morey, Robin |
| Ed330 | Lesson Planning Seminar | 1 | Rose, Angela N . |
| Ed402 | Student Teaching (EE) | 12 | Rose, Angela N . |
| Eng220 | Virtue, Vice, and Visions: English Literature 650-1650 | 3 | Cooper, Robin |
| Eng360 | Victorian Literature (IL) | 3 | Pine, Ryan E. |
| FA103 | Art of Asia, Africa, and the Americas | 3 | Kline, Jonathan D. |
| FA140* | Drawing and Painting | 3 | Gyllenhaal, Martha |
| FA141* | Building Arts Foundation | 3 | Staff, |
| FA122* | Metal Forging | 3 | McDonah, Tedd |
| FA252* | Introduction to Welding and Machine Work | 3 | Holzman, Warren |
| FE2 | Field Experience II: Exploration | 3 | Rose, Angela N . |
| Hist117 | The Contemporary World | 3 | Rose, D. Greg |
| Hist257 | Women in Classical Antiquity (PP) | 3 | Closterman, Wendy |


| HSoc402 | Capstone Seminar II (WC) | 3 | Closterman, Wendy |
| :---: | :---: | :---: | :---: |
| Lat250 | Swedenborg's Theological Latin I | 3 | Frazier, Scott Innes |
| Lead130 | Introduction to Leadership (EE) | 3 | Nash, Laura |
| Math115 | College Algebra (QR) | 3 | Staff, |
| Math130 | Introduction to Statistics (QR) | 3 | Bongers, Caira |
| Math130L | Introduction to Statistics Lab | 1 | McMackin, Grace Rose |
| Math130L | Introduction to Statistics Lab | 1 | McMackin, Grace Rose |
| Math151 | Calculus II | 4 | Simonetti, Neil |
| Math495 | Senior Essay (WC) | 2 | Bongers, Caira |
| PE103 | Life and Health | 1 | Bryntesson, Hilary J. |
| PE133 | Yoga | 1 | Durand, Bennet |
| Phil101 | Critical Thinking | 3 | Synnestvedt, Dan |
| Phil102 | Introduction to Philosophy (Worldview) | 3 | Synnestvedt, Dan |
| Phil102H | Introduction to Philosophy (Worldview) (Honors) | 3 | Cole, Stephen |
| Phil111 | Introduction to Moral Philosophy (Moral) | 3 | Latta, Marcy |
| Phil210 | Ancient Philosophy | 3 | Latta, Marcy |
| Phil321 | Swedenborg's Philosophy | 3 | Cole, Stephen |
| Phys210 | Principles of Physics I (QR) | 3 | DeLuca, Giovanni L |
| Phys210L* | Principles of Physics I-Lab | 1 | DeLuca, Giovanni L |
| PSci101 | Introduction to Politics and Governance (Civil) | 3 | Rose, D. Greg |
| PSci101 | Introduction to Politics and Governance (Civil) | 3 | Rose, D. Greg |
| Psyc101 | Introductory Psychology | 3 | Castro, Sofia |
| Psyc201 | Abnormal Psychology | 3 | Clark, Kristina |
| Psyc217 | Cultural Psychology | 3 | Castro, Sofia |
| Psyc301 | Counseling and Clinical Psychology | 3 | Rogers, Kiri K. |
| Psyc305 | Neuropsychology (IL) | 3 | Cavallo, Fernando |
| Psyc491 | Capstone Seminar 2 (WC) | 3 | Nash, Laura |
| Rel101 | Introduction to New Church Doctrines (SpDoc) | 3 | Silverman, Ray |
| Rel101 | Introduction to New Church Doctrines (SpDoc) | 3 | Schnarr, Grant |
| Rel123 | Introduction to the Old and New Testaments (SpScript) | 3 | Glenn, Coleman |
| Rel125 | The Holy Scripture (SpDoc) | 3 | Genzlinger, Matthew |
| Rel205 | God, Man, and Creation (IL)(SpDoc) | 3 | Frazier, Scott Innes |
| Rel215 | The Lord (SpDoc) | 3 | Glenn, Thane |
| Rel273 | Religion and Marriage (SpDoc)(W) | 3 | Silverman, Ray |
| Rel305 | Universal Doctrines of the New Church I (SpDoc)(W) | 3 | Frazier, Scott Innes |
| Rel490 | Religion Senior Project I (WC) | 3 | Frazier, Scott Innes |
| Span102 | Introductory Spanish II | 3 | Diaz, Elena |
| SpEd212 | Supporting Students with Disabilities | 3 | Wong, Sarah |
| SpEd312 | Classroom Assessments | 3 | Phillips, Nina Gunther |
| Thea130 | Scenic Production (EE) | 3 | Haus-Roth, Naomi |
| Thea150 | Dramatic Performance (EE) | 3 | Bostock, Jessica |
| Writ101 | Expository Writing (W) | 3 | Cooper, Robin |
| Writ101 | Expository Writing (W) | 3 | Hoffman, Chandra |
| Writ101H | Expository Writing (W) (Honors) | 3 | Glenn, Thane |
| Writ202 | Writing About Literature (W) (IL) | 3 | McKee, Ellen B. |

+This course is offered on multiple levels. All students must register on the 100 level.
*This course requires a lab fee.
The College administration will make every effort to offer the courses listed, but reserves the right to cancel courses if necessary.

## Winter Term 2023-24 Undergraduate Courses

## Anthropology

Anthropology 213. Archaeology and World Pre-History.
Using world archaeological sites as steppingstones, follows a narrative of prehistory from Australopithecus through the advent of urban civilization in the old and new worlds. Focuses on three general revolutions in human history: 1) the emergence of the genus Homo with all its modern attributes; 2 ) the development of agriculture and animal husbandry during the Neolithic; 3 ) the coming together of humans in cities and states, and the ramifications for human society.
3 Credits.
Anthropology 320. Genocide.
Seminar course on genocides in the 20th century. Focuses primarily on the cases of Ottoman Armenia, The Holocaust, and Rwanda. Through primary and secondary literature, examines the cultural context, historical background and legal frameworks, denialist projects, and memorializations. Political and psychological ramifications in the descendant communities of victims and victimizers are considered, as well as reparation processes.
3 Credits.

## Biology

Biology 123. Introduction to Biology: Molecular Biology.
The second of a two-course gateway series that is required for prospective biology majors. Biological concepts are illustrated by means of molecular biology, from storage and maintenance of biological information necessary for life to its expression in the organism to diverse applications in health, medicine and food production. Topics include a general introduction to the cell and its components, DNA and RNA structure, DNA replication, chromosome structure and organization, the genetic code, transcription, translation and proteins, gene mutations and DNA repair, regulation of gene expression in prokaryotes and eukaryotes, epigenetics, cancer and the regulation of the cell cycle, recombinant DNA technology, CRISPRCas, applications of genetic engineering and biotechnology, genetically modified foods, DNA forensics, and gene therapy. This course and the related laboratory must be taken together.
Prerequisite: Chemistry 101L or High School Chemistry.
3 Credits.
Biology 123 Lab. Introduction to Biology: Molecular Biology Lab.
This course requires a lab fee. This course and the related lecture course must be taken together.
1 Credit.

Biology 220. Human Anatomy and Physiology II.
Continuation of the study of the structure and function of the human body and the mechanisms for maintaining homeostasis within it. Includes the study of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems, as well as the concepts of development and metabolism. Identification of anatomical structures using a "virtual" cadaver and preserved animal specimens will be required in the laboratory. Some hands-on dissection. This course and the related laboratory must be taken together.
Prerequisite: Biology 210 and 210L.
3 Credits.

Biology 220 Lab. Human Anatomy and Physiology II Lab.
This course requires a lab fee. This course and the related lecture course must be taken together. 1 Credit.

## Biology 222: Introduction to Kinesiology

An introductory study of human movement including the anatomical, physiological, neurological, and biomechanical foundations and how these are integrated. Emphasis will be on fundamental principles illustrated through examples and connected to practical and professional applications. Course will also cover aspects of motor development, changes in movement over the lifespan and with certain movement disorders, introduction to skills related to examining and analyzing human movement, reading and application of research, as well as the interplay of human activity, health, and well-being.
Prerequisite: Biology 210 and 210L.
3 Credits.

Biology 245. Zoology.
Exploration of the animal kingdom, including: systematics, anatomy, and physiology. Topics consist of basic concepts of zoology, diversity of major groups of invertebrate and vertebrate animals, evolutionary relationships, structure and function of vertebrate and invertebrate organ systems, and evolutionary development of organ systems. Includes a lab with hands-on activities focused on selected taxa. This course and the related laboratory must be taken together.
Prerequisites: Biology 122, 122L, 123, and 123L.
3 Credits.

Biology 245 Lab. Zoology Lab.
This course requires a lab fee. This course and the related lecture course must be taken together.
1 Credit.
Biology 492. Biology Seminar III.
Public presentation of undergraduate biological research. Required of seniors in the biology major and open to seniors in the ID major who are studying biology.
Prerequisites: Biology 380, 490, and Biology 495.
1 Credit.
Biology 495. Senior Project. (WC)
Independent research project or scholarly study under the supervision of faculty members. Topic chosen by mutual agreement between student and supervisor. Limited to and required of biology majors. Senior project proposals are required in the spring of junior year.
Prerequisites: Biology 380 and Biology 490.
3 Credits.

## Business

Business 142. Accounting II.
Interpretation of financial statements and the use of accounting information as a tool for making business management decisions. Use of computer spreadsheets emphasized.
Prerequisite: Business 141.
3 Credits.

## Business 256. Principles of Sales.

In this course, the student will learn about assessing customer needs, developing account relationships and implementing effective sales strategies. During the course students will return to the theme of approaching sales with honesty and integrity, both from a practical and moral perspective. This course will cover the broader role sales communication plays in bringing people and the products and services they need together, not just the narrow skills required to convince the customer to make a purchase.
Prerequisite: Communication 105. Recommended: Business 254.
3 Credits.
Business 267. Introduction to Sports Management.
This course highlights the need for trained sport management professionals by examining the history of sport. This course also provides analysis of effective management strategies and the body of knowledge associated with pursuing a career as a manager in the sport industry. Functional management, strategic planning, decision making, leadership style, managing conflict and change, motivation of a workforce, and career opportunities in different sport environments will be explored.
Prerequisite: any science or any economics or any business principles course.
3 Credits.
Business 301. Business Ethics. (Moral, PP)
The analysis of moral principles and their application to decision making in business. Includes an overview of philosophical and theological ethical theories, including New Church ethics. Major focus on the analysis of ethical concerns in actual case studies from business, involving issues such as downsizing, whistle-blowing, competition vs. cooperation, and social responsibility. Communication 105 or any other public presentation course is recommended before taking this course.
3 Credits.

Business 305. Business Seminar.
A seminar course featuring speakers from a variety of professional backgrounds. Students will be expected to interview and introduce these speakers and lead follow-up discussions on the material they present. May be repeated for credit.
1.5 Credits.

Business 495. Senior Capstone Project. (WC)
Capstone experience for the Interdisciplinary Major. Writing of the senior project based on the research and outline produced in Business 493.
Prerequisites: Business 493 and Business 494.
2 Credits.
Business 496. Senior Seminar II.
For seniors in the Business Major. Public presentation of senior project. Career planning and portfolio development. Pass/Fail.
Prerequisite: C- or better in Business 495.
1 Credit.

## Chemistry

Chemistry 110. General Chemistry I.
First year chemistry course for science majors. Topics include atomic structure, quantum mechanics, electron configuration, chemical bonding, molecular geometry, and the periodic table, classifications of matter,
stoichiometry, and reactions in solution, gases, and thermochemistry. First half of sequence with Chemistry 111. This course and the related laboratory must be taken together.

Prerequisite: One year of high school chemistry with a grade of C or better or Chemistry 101 or Earth Science 110. Any student who registers for this course and has a math SAT of 450 or lower (or the equivalent ACT score) must take Chemistry 101 prior to taking Chemistry 110.
3 Credits.

Chemistry 110 Lab. General Chemistry I Lab.
This course requires a lab fee. This course and the related lecture course must be taken together.
1 Credit.

Chemistry 211. Organic Chemistry II.
Continuation of Chemistry 210. Topics include spectrophotometric identification of organic compounds, arenes, esters, epoxides, aldehydes and ketones, carboxylic acids and acid derivatives, and condensation reactions. Emphasis on biological applications of organic chemistry. This course and the related laboratory must be taken together.
Prerequisite: Chemistry 210 and 210L.
3 Credits.

Chemistry 211 Lab. Organic Chemistry II Lab.
Includes synthetic techniques and computational chemistry. This course requires a lab fee. This course and the related lecture course must be taken together.
Prerequisite: Chemistry 210 and 210L.
1 Credit.

## Communication

Communication 105. Public Speaking. (PP)
Exposure to a variety of speaking situations designed to develop self-confidence. Class work features impromptu and prepared speeches. Work on voice and speech improvement as well as command of body language. Attention to effective strategies for professional presentations and public speaking, both face-toface and online.
3 Credits.

## Computer Science

Computer Science 180. Structured Programming.
Language elements and applications. Algorithm development. Introduction to object-oriented programming.
Prerequisite: Computer Science 105 or other programming experience with permission of instructor.
3 Credits.

Computer Science 206. Introduction to Data Science.
Skills and tools in acquiring, organizing, parsing, manipulating, and preparing data for statistical analysis.
Skills include classifying unstructured data, cleaning data, identifying useful questions, and simple analysis.
Tools include Excel, Python, and Microsoft Business Intelligence software packages.
Prerequisite: Any Computer Science course.
3 Credits.

## Dance

Dance 120. Dance Technique.
A studio course in fundamental dance technique, including jazz dance, modern/contemporary dance, and ballet. The course focuses on proper alignment, execution, and the overall strength and flexibility specific to the dancer. The artistry and musicality of the dancer is explored through dance combinations, improvisation exercises, and analysis of famous pieces of choreography. Also serves as a PE course.
3 Credits.
Dance 495. Senior Essay. (WC)
Capstone experience for the Interdisciplinary Major. Writing of the senior essay based on the research and outline produced in Dance 493.
Prerequisites: Dance 493 and Interdisciplinary Studies 494.
2 Credits.

## Economics

Economics 131. Macroeconomics. (QR)
Study of the fundamentals of economic analysis with emphasis upon national output, employment, and price levels. Exploration of the monetary and financial system together with problems of economic stability. Special attention given to the role of government fiscal and monetary policy in managing the economy.
Consideration of current issues such as economic growth, federal budget deficits, and the role of the Federal Reserve Bank. Course includes student-led seminars. 3 Credits.

## Education

Education 272. Child Development: Birth - Nine Year Olds.
This course looks at how theories of child development and research can inform best practices for childcare and education. Major theories of human development are compared within the context of New Church education. Emphasis on attachment theory, the sensory needs of early childhood, and how to create an environment that helps children develop resilience in an increasingly technological world.
3 Credits.
Education 323. Math and the Young Child.
Exploration of the content and methods of teaching mathematics Pre-K to 4th grade. Emphasis on a problem-solving approach to the teaching of math within the context of a developmentally appropriate curriculum. Students learn how to engage children in the subject through imaginative, musical, rhythmic, athletic, and artistic activities. This course is about how to teach math so it makes sense.
3 Credits.

## Education 330. Lesson Planning Seminar

In this seminar students discuss the PA competencies in relation to their field experience placement. Lesson planning skills are practiced using the PA standards for Health, Safety, and Physical Education. Other classroom teaching skills practiced include writing on a vertical surface and leading students in creative movement and "brain breaks."
1 Credit.

Education 402. Student Teaching. (EE)
Includes at least 12 weeks of combined observation and teaching in an early childhood education classroom setting, supervised by a teacher from Bryn Athyn College Education Department and by a classroom teacher in the cooperating school. Open only to seniors in the education major.
3-12 Credits.

## Field Experience II: Exploration.

Students work under a classroom teacher's supervision tutoring children, facilitating small group conversations, supervising outdoor play, and monitoring classroom routines and procedures. FE II is taken in conjunction with all winter term courses of the third year and provides students with 120 hours of observation and practice teaching. FE II occurs every Tuesday and Thursday of the term. Not open to nonmajors; third-year students only.
3 Credits.

Special Education 212. Supporting Students with Disabilities.
This course examines the characteristics and needs of students who are identified under the 13 federallydefined categories of disability. Students examine the complexity of these needs and the specially designed instruction that meet those needs, especially through an asset-based lens. Evidence-based frameworks such as UDL and other strategies that support inclusionary practices within the life of the classroom is addressed throughout the term.
Prerequisite: Special Education 111.
3 Credits.
Special Education 312. Classroom Assessments.
This course addresses the effective use of assessment as part of classroom instruction, and as part of the eligibility determination process for special education services. Students will gain hands-on experience with administering and interpreting a variety of assessment tools and will learn how to appropriately adapt instruction based on assessment findings.
Prerequisite: Special Education 111 and permission of the education department chair.
3 Credits.

## English

Literature courses in this discipline fill the aesthetic requirement of the Core Program. 200-level English courses require Writing 101 as prerequisite. 300+-level English courses require a 200-level English as prerequisite.

English 220. British Literature I. Virtue, Vice, and Visions: 650-1650.
Chronological survey of the development of English literature in England from the early medieval period through the mid-17th century. Lecture, discussion, and student reports or projects.
Prerequisite: Writing 101.
3 Credits.
English 360. Victorian Literature. (IL)
Study of selected literary figures of England from 1830 to 1900, with emphasis on trends in religion, philosophy, and science, and on the literary genre of the novel.
Prerequisite: Any 200-level English course.
3 Credits.

## Experiential Education

Experiential Education 198/298. Internship. (EE)
The internship course is open to students with a 2.5 GPA or above. It is a supervised, pre-professional experience with clear links to a student's academic program. It is conducted primarily or totally outside a regular course classroom, and for which a student earns academic credit. It is organized primarily around an assignment in a work-place situation in which students working under the direction of a supervisor learn hands-on professional skills.
The internship course requires a syllabus, reflective component, and an analytical component (e.g., essay, paper, or presentation). Individual syllabi are retained on the college drive. This course satisfies the EE requirement.
Course may be repeated for academic credit by arrangement.
Credit variable.
Leadership 130. Introduction to Leadership. (EE)
This course engages students in the basic tools necessary to become a successful leader. Students design a leadership project and review leadership theories. Students analyze leadership characteristics and target an area for their own strengthening. Students set measurable goals that stretch their capabilities through leadership challenges and homework assignments. No prerequisite required.
3 Credits.

## Fine Arts

Fine Arts 103. Art of Asia, Africa, and the Americas.
Introductory survey of art and architecture of Asia, Africa, and the Americas, considering material as diverse as Shang dynasty bronzes and Song and Ming dynasty hand- and hanging-scrolls in China, early Buddhist art and architecture and later painted screens in Japan, Aztec, Mayan, and Incan art in Central and South America, bronzes from the Kingdom of Benin, and masks and sculpture from the various peoples of West Africa.
3 Credits.

Fine Arts 122. Metal Forging.
Introduction to artistic ironwork concentrating on hand-forged, wrought iron using traditional techniques. Inspired by the magnificent examples in Glencairn and Bryn Athyn Cathedral.
This course requires a lab fee.
3 Credits.

Fine Arts 140. Drawing and Painting.
Introduction to basic techniques in drawing and painting. Oil painting project. Discussion of the development of the history of painting.
This course requires a lab fee.
3 Credits.
Fine Arts 141. Building Arts Foundation I.
Introduction to the Building Arts curriculum by focusing on fundamental design and drawing principles essential to all craft disciplines. Students learn to communicate ideas, design and execute projects through sketches, hand drawings and computer-generated drawings.
This course requires a lab fee.
3 Credits.

Fine Arts 252. Introduction to Welding and Machine Work
This course introduces students to the procedures of operating equipment commonly found within an architectural metals shop environment. Students will be introduced to various welding techniques, along with the safe use of equipment such as lathes and mills, both individually and within a group setting. Emphasis will be placed on safety and craftsmanship.
This course requires a lab fee.
3 Credits.

## History

History 117. The Contemporary World.
Examination of the post-World War II era and its effect on societies around the globe. Includes survey of political and economic developments in the different regions of the world and thematic approach to the contemporary global situation. Current events discussions.
3 Credits.

History 257. Women in Classical Antiquity. (PP)
Examination of the social roles and experiences of women in ancient Greece and Rome using archaeological and textual evidence. Topics include stages of life, women's occupations, women's experiences in the household, religion, and public settings, women and the law, and women and medicine. Particular consideration of the challenges presented by the ancient evidence and of the distinction between ideological views and actual lived experiences.
3 Credits.

## Human Society

Human Society 402. Capstone Seminar II. (WC)
Students in the Human Society major write their capstone projects. The seminar setting provides instruction in related skills and offers a forum for support and the exchange of ideas. As part of the seminar, students present the results of their research publicly and design posters. Only open to Human Society majors. Prerequisite: HSoc 401.
3 Credits.

## Independent Studies and Honors Contracts

In addition to the listed courses, departments may offer independent studies and honors contracts at the 200level or above in a variety of fields. The purpose of these is to allow well-qualified students to study beyond the regularly offered courses. Independent studies are numbered 299 or 399 , depending on the appropriate level, and honors contract courses are designated with a trailing H, such as Math205H. Academic departments are under no obligation to meet requests for independent studies and honors contracts. Students who undertake independent studies must be able to work independently between meetings with the instructor. In order to qualify to take an independent study or honors contract, a student must:

- Have completed at least 31 credits with a GPA of 2.7 or better
- Submit a proposal to the department chair during the week prior to registration for the term in which the independent study or honors contract is to occur.
- Submit an independent study card or honors contract card (signed by the department chair and instructor) to the College Office to be reviewed by the Dean of Academics.
- Create a syllabus together with the instructor and submit it to the College Office before or during registration.


## Internships

298/398/498 Internships (in their academic areas) (EE)
Individually arranged career related internships. See the Major Department Head or Director of Internships for details.
3 Credits.

## Latin

Latin 250. Swedenborg's Theological Latin I.
Intensive review of Beginning Latin, followed by varied readings in the Writings. Various styles of writing distinguished (expository, philosophical, descriptive, narrative). Special attention to non-Classical constructions.
Prerequisites: Latin 110 and 111 or approval of the instructor.
3 Credits.

## Mathematics

Mathematics 115. College Algebra. (QR)
Algebraic topics designed to assist in the use of mathematics in science courses. Topics include exponents and radicals, rational expressions, inequalities, complex numbers, polynomial analysis and advanced factoring, rational functions and asymptotes, and quantitative reasoning applications. Because of duplication of subject matter, students may not receive credit for both Mathematics 115 and Mathematics 120.
Prerequisite: Mathematics 101 or appropriate score on placement test.
3 Credits.
Mathematics 130. Introduction to Statistics. (QR)
Introduction to data analysis, random variables and their distributions, correlation, and statistical inference. Statistical software used for graphing and data analysis. Independent research project. Recommended for students of business or the social and natural sciences.
Prerequisite: Mathematics 101 or appropriate score on placement test.
4 Credits.
Mathematics 151. Calculus II.
Methods and applications of integration, improper integrals, infinite series, Taylor polynomials, and parametric equations.
Prerequisite: Mathematics 150.
4 Credits.
Mathematics 495. Senior Essay. (WC)
Capstone experience for the Mathematics or Interdisciplinary Major. Writing of the senior essay based on the research and outline produced in Mathematics 493.
Prerequisites: Mathematics 493 and either Interdisciplinary Studies 494 or Mathematics 494.
2 Credits.

## Philosophy

Philosophy 101. Critical Thinking.
Development of students' reasoning skills through analysis and evaluation of arguments. Diagraming arguments, identifying mistakes in reasoning, and writing arguments. Emphasis on issues encountered in everyday experience and in courses across the curriculum, primarily through inductive and deductive logic. 3 Credits.

Philosophy 102. Introduction to Philosophy. (Worldviews)
Survey of some major philosophers and theories in metaphysics, epistemology, and the philosophy of religion.
3 Credits.
Philosophy 111. Introduction to Moral Philosophy. (Moral)
Survey of some major philosophers, problems (Euthyphro, relativism, egoism), and theories (aretaic, deontic, utilitarian) in moral philosophy. Strongly recommended: Philosophy 101 or Philosophy 102. 3 Credits.

Philosophy 210. Ancient Philosophy.
Historical consideration of ancient Greek philosophy (with emphasis on Socrates, Plato, and Aristotle) or Roman philosophy (with emphasis on Cicero, Aurelius, and Seneca). Strongly recommended: Philosophy 101. Prerequisite: Philosophy 102.
3 Credits.
Philosophy 321. Swedenborg's Philosophy II.
Swedenborg's thought upward from the human body in his "search for the soul." Main text taken from the sections on Series and Degrees and The Human Soul in The Economy of the Animal Kingdom, terminating in applications in The Rational Psychology.
3 Credits.

## Physical Education

Physical Education 103. Life and Health.
Introduction to personal and social health problems we all face today. This course provides information that helps the student understand and investigate these health problems further. Scientific knowledge is presented from a variety of disciplines, such as, medicine, psychology, physiology, and sociology. Non-repeatable.
1 Credit.
Physical Education 133. Yoga.
Introduction to yoga course. Variety of yoga (poses) including standing poses, twists and forward bends, arm-balancing, back bending and inversions. Open to all abilities. Course may be repeated once for credit. 1 Credit.

## Physics

Physics 210. Principles of Physics I. (QR)
Calculus-based course providing an introduction to rigid body mechanics, gravity, waves, and heat. Problem and laboratory assignments complement the lectures. This course and the related laboratory must be taken together.
Co-requisite or Prerequisite: Mathematics 150.
3 Credits.

Physics 210 Lab. Principles of Physics I Lab.
This course requires a lab fee. This course and the related lecture course must be taken together. 1 Credit.

## Political Science

## Political Science 101. Introduction to Politics and Governance. (Civil)

Examines the discipline of political science and the concepts involved in the study of politics and governance. Surveys regime types and the role and function of political institutions and organizations. Focus on the potential for thinking about civic and political issues from a religiously-informed perspective.
3 Credits.

## Psychology

Psychology 101. Introductory Psychology.
Introduction to basic constructs of psychology including scientific methodology, the brain, consciousness, memory, identity, learning, motivation, intelligence, and the nature of mental illness. Relevant New Church doctrines analyzed and compared to secular theories of psychology.
3 Credits.

Psychology 201. Abnormal Psychology.
Examination of mental disorders as classified by the medical model, including schizophrenia and other psychotic disorders, mood disorders, anxiety disorders, dissociative disorders, disorders of childhood, eating disorders, and personality disorders. Critical analysis of the principles and philosophy of the medical model, as well as the physiological underpinnings of certain disorders. Alternative views for the conceptualization of mental disorders explored.
Prerequisite: Psychology 101 or department chair permission.
3 Credits.
Psychology 217. Cultural Psychology.
This course is an exploration of the similarities and differences in human behavior across a variety of cultures. Topics explore cultures including ethnicity, gender, social class, and social norms. Emphasis on cultural psychology's view of development and socialization, identity and personality, race and ethnicity, gender and sexuality, and mental health, as well as developing an understanding of recent cultural theories and experiences. The course will also provide students with the opportunity to discuss applications of cultural diversity issues in various settings.
3 Credits.

Psychology 301. Counseling and Clinical Psychology.
Examination of psychological theories that inform the skills of counselors and clinical psychologists in various professional settings. Topics include psychological theories, the roles of the counselor, listening skills, case conceptualization, treatment methods and intervention strategies. Consideration of what it means to incorporate individual values and spirituality into treatment.
Prerequisite: Two psychology courses or department chair permission.
3 Credits.

Psychology 305. Neuropsychology. (IL)
Exploration of the neural basis of behavior and motivation. Emphasis on the structure, functions and disorders. Topics include memory, emotion, learning, addictions, conscience, states of mind, and self-
regulation. Consideration of Swedenborgian view of the brain, mind, and the soul. Information Literacy skills emphasized.
Prerequisite: Psychology 101 and either Biology 122 or department chair permission.
3 Credits.

Psychology 491. Senior Capstone Seminar 2 in Psychology. (WC)
Capstone for seniors in the psychology major. Independent work on a Senior Research Essay guided by the professor. Essay includes an abstract, introduction, literature review, descriptive chapter, doctrinal study, conclusions, and references. Information literacy and writing skills emphasized.
3 Credits.

## Religion

Religion 101. Introduction to New Church Doctrines. (Doctrinal)
Foundation course. Basic survey of the doctrines of the New Church. Presupposes little or no formal background in the study of the doctrines.
3 Credits.
Religion 123. Introduction to the Old and New Testaments. (Scriptural)
Introduction to the various parts of the Bible, the history of the Israelites and Jews, the geography of
Palestine, with an emphasis on the different methods of biblical interpretation, with special emphasis on New Church interpretation.
3 Credits.
Religion 125. The Holy Scripture. (Doctrinal)
The symbolic nature of the Word and the spiritual meaning within. The importance of the literal meaning and its interpretation. The Word in heaven and the church. Dual expressions in the Word. Heresies. The Lord and the Word. The Word in very ancient times. The universal church. The necessity of revelation. Illustrations drawn throughout from the Old and New Testaments. Text: The Doctrine of the Sacred Scripture. 3 Credits.

## Religion 205. God, Man, and Creation. (IL, Doctrinal)

Study of how the Lord created the spiritual and natural worlds, with emphasis on humans as the purpose of creation. Vital relationships between the Creator and His creation, with the special role played by humans. Focus on teaching about form, order, degrees, influx, and conjunction.
Text: Divine Love and Wisdom.
3 Credits.
Religion 215. The Lord. (Doctrinal)
Introduction to New Church teachings about the Lord. Who is the God of the Biblical testaments? What was Jesus Christ's life on earth about? Special focus on seeing the Lord in the Scriptures, in scholarship, and in the teachings for a New Church.
3 Credits.
Religion 273. Religion and Marriage (W, Doctrinal)
New Church doctrine concerning marriage. Includes the Divine origin of marriage; the nature of masculinity and femininity; the state of married partners after death; betrothals and weddings; separation and divorce; the role of the Ten Commandments in marriage; states of discord and coldness; adultery and other sexual disorders. Text: Conjugial Love.
3 Credits.

Religion 305. Universal Doctrines of the New Church I. (Doctrinal)
Systematic survey of the universal theology of the New Church: God the Creator, the Lord the Redeemer, the Holy Spirit, the Holy Scripture and Ten Commandments, and Faith. Depending on enrollment, may include an RTTP simulation of the Council of Nicea. Text: True Cbristian Religion.
3 Credits.
Religion 490. Religion Senior Project I. (WC)
For religion majors. One term is required. May be repeated for a second term with the consent of the division head.
3 Credits.

## Spanish

Spanish 102. Introductory Spanish II.
Continuing introduction to the Spanish language. Spanish is the language of instruction.
Prerequisite: Spanish 101 or equivalent as determined by placement test.
3 Credits.

## Theater

Theater 130. Set Design and Production. (EE)
Continuation of Theater 120: building and dressing the set from the designer drawings and elevations created in the fall. Finalizing of the design, including color elevations and prop design. Students required to understand and use all of the equipment in the theater as it pertains to the completion of the design using the Mitchell Performing Arts Center as the classroom. Once the set is complete, the class shifts and will work with the play's director and will participate as a member of the run-crew for the winter Bryn Athyn College production. Final project involves the construction of the actual set and running of the show. Course may be repeated once for credit.
Credit variable.
Theater 150. Dramatic Performance. (EE)
Students involved in the casts or technical aspects of certain dramatic productions may sign up for this course. Exposure to a variety of acting techniques, including the specialized work needed for productions that might range from Shakespeare's plays, to foreign plays in translation, to musicals. Script analysis, oral interpretation of character, performance movement, dance, and vocal techniques. Variable credit based on the student's involvement. 5-12 hours weekly in rehearsals/classes leading to a finished production. Course may be repeated once for credit.
1-3 Credits.

## Writing

Writing 101. Expository Writing. (W)
Development of informative, analytic, and persuasive writing. Emphases on grammatical control, precision of language, consideration of audience, rhetorical strategies, revision, information literacy, and articulation, development, and support of thesis. Three to four formal essays, including substantial revision work. Individual conferences with instructor to discuss students' writing. Required of first year students. Non-native speakers who want to take Writing 101 in their first year need permission of the Language and Literature department chair.
3 Credits.

Writing 202. Writing About Literature. (W, IL)
Second-year requirement of all students. Analytic study of 3 or more literary genres, with emphases on writing and research. Assumes basic skills in writing and information literacy covered in Writing 101. Three formal essays, including substantial revision. One longer essay and its accompanying research process require locating, evaluating, and incorporating multiple secondary sources. Individual conferences with instructor to discuss students' writing. Required of second-year students. Dean's permission required for deferral to third year.
Prerequisite: Writing 101.
3 Credits.

## Spring Term 2023-24 Undergraduate Course List

As of $8 / 3 / 23$. (Independent Study and Internship courses not listed).

| Course | Description | Credits | Instructor |
| :---: | :---: | :---: | :---: |
| Ant/His211 | Artifacts, Archaeology, and Museums (W) | 3 | Closterman, Wendy |
| Anth110 | An Introduction to Cultural Anthropology | 3 | Yardumian, Aram |
| Bio230 | Genetics | 3 | Bryntesson, A. Fredrik |
| Bio232 | Cell Structure and Function | 3 | Bryntesson, A. Fredrik |
| Bio235 | Ecology | 3 | Potapov, Eugene R. |
| Bio235L* | Ecology Lab | 1 | Potapov, Eugene R. |
| Bio250 | Microbiology | 3 | Evans, Stella R. |
| Bio250L* | Microbiology Lab | 1 | Evans, Stella R. |
| Bio315 | Principles of Biochemistry | 3 | Higgins, Ed |
| Bio380 | Research Seminar (IL)(PP) | 1 | Evans, Stella R. |
| Bio492 | Biology Seminar III | 1 | Potapov, Eugene R. |
| Bus/Wrt220 | Business Communications (W) | 3 | Williams, Mary |
| Bus257 | Principles of Management | 3 | Staff, |
| Bus272 | Drone Applications in Business and Science | 3 | King, Ethan |
| Bus302 | Corporate Social Responsibility | 3 | Rogers, Elizabeth |
| Bus327 | International Financial Management | 3 | Hunt, Garvin |
| Bus390 | Research Seminar(IL) | 2 | King, Ethan |
| Chem111 | General Chemistry II | 3 | Higgins, Ed |
| Chem111L* | General Chemistry II Lab (QR) | 1 | McMackin, Grace Rose |
| Chem111L* | General Chemistry II Lab (QR) | 1 | McMackin, Grace Rose |
| Comm105 | Public Speaking (PP) | 3 | Pine, Ryan E. |
| Comm225 | Professional Communications and PR for Contemporary | 3 | Pine, Ryan E. |
| CS/Math230 | Statistics and Data Mining (QR) | 3 | Bongers, Caira |
| CSci160 | World Wide Web Development | 2 | Simonetti, Neil |
| CSci260 | World Wide Web Languages | 1 | Walls, Michael |
| Dan160/260/360+ | Dance Ensemble (EE) | 1.5 | Bostock, Jessica |
| Dan232 | Jazz Dance | 3 | Bostock, Jessica |
| Dan241 | History of Twentieth-Century American Dance | 3 | Bostock, Jessica |
| Econ132 | Microeconomics (QR) | 3 | King, Ethan |
| Ed128 | Introduction to the Theory and Practice of Education | 3 | Rose, Angela N . |
| Ed274 | Adolescent Growth and Development: Ages 8-18 | 3 | Phillips, Nina Gunther |
| Ed402 | Student Teaching (EE) | 12 | Rose, Angela N . |
| Eng221 | Famous Authors and Fictions of British Literature: 1660- | 3 | Cooper, Robin |
| Eng495 | Senior Seminar: Career Preparation | 1.5 | Pine, Ryan E. |
| ESci110 | Introduction to Physical Geology and Meteorology | 3 | Potapov, Eugene R. |
| ESci110L* | Principles of Physical Geology: Lab | 1 | Potapov, Eugene R. |
| FA205 | Introduction to American Architectural History | 3 | Kline, Jonathan D. |
| FA241* | Building Arts Foundation II | 3 | Staff, |
| FA322 | Traditional Joinery Design and Production | 3 | Holzman, Warren |
| FE3 | Field Experience III | 3 | Rose, Angela N . |
| Hist115 | The Medieval World | 3 | Lawing, Sean |
| Hist205 | Africa from Imperialism to Decolonization | 3 | Palladino, Christopher |
| Hist311 | Vengeance and Justice in Medieval Europe | 3 | Lawing, Sean |
| ID390 | Research Seminar (IL) | 2 | Latta, Marcy |
| Lat251 | Swedenborg's Theological Latin II | 3 | Frazier, Scott Innes |


| Math095 | Preparation for Quantitative Reasoning | 1 | Genzlinger, Maret |
| :---: | :---: | :---: | :---: |
| Math101 | Introduction to Quantitative Reasoning (QR) | 3 | Simonetti, Neil |
| Math102 | Understanding Mathematics in Society (QR) | 3 | Simonetti, Neil |
| Math124 | Transcendental Functions (QR) | 1.5 | Simonetti, Neil |
| Math130 | Introduction to Statistics (QR) | 3 | McMackin, Grace Rose |
| Math130L | Introduction to Statistics Lab | 1 | McMackin, Grace Rose |
| Math130L | Introduction to Statistics Lab | 1 | McMackin, Grace Rose |
| Math130LH | Introduction to Statistics Lab (Honors) | 1 | Simonetti, Neil |
| Math140 | Elements of Calculus (QR) | 3 | Staff, |
| Math250 | Calculus III | 4 | Bongers, Caira |
| Mus100 | College Chorale | 1 | Bier, Graham |
| Mus113 | Music Theory I | 3 | Staff, |
| Nutr110 | Principles of Nutrition | 3 | Staff, |
| PE129 | Badminton | 1 | Staff, |
| PE170 | Frisbee Sports | 1 | Bryntesson, Hilary J. |
| Phil101 | Critical Thinking | 3 | Synnestvedt, Dan |
| Phil102 | Introduction to Philosophy (Worldview) | 3 | Cole, Stephen |
| Phil105 | Work and Meaning (EE) | 3 | Synnestvedt, Dan |
| Phil311 | Topics in Contemporary Philosophy II | 3 | Synnestvedt, Dan |
| Phil340 | Bioethics (Moral) | 3 | Latta, Marcy |
| Phys211 | Principles of Physics II (QR) | 3 | DeLuca, Giovanni L |
| Phys2111* | Principles of Physics II -Lab | 1 | DeLuca, Giovanni L |
| PSci101 | Introduction to Politics and Governance (Civil) | 3 | Rose, D. Greg |
| PSci101 | Introduction to Politics and Governance (Civil) | 3 | Rose, D. Greg |
| PSci160 | Introduction to Criminal Law and Justice | 3 | Rogers, Elizabeth |
| Psyc205 | Social Psychology (PP) | 3 | Castro, Sofia |
| Psyc215 | Organizational Psychology | 3 | Castro, Sofia |
| Psyc220 | Cognitive Psychology | 3 | Castro, Sofia |
| Psyc330 | Research Methods in Psychology | 3 | Cavallo, Fernando |
| Rel115 | Introduction to New Church Doctrine on Life After Death | 3 | Frazier, Scott Innes |
| Rel115 | Introduction to New Church Doctrine on Life After Death | 3 | Schnarr, Grant |
| Rel115 | Introduction to New Church Doctrine on Life After Death | 3 | Schnarr, Grant |
| Rel125 | The Holy Scripture (SpDoc) | 3 | Genzlinger, Matthew |
| Rel222 | The Gospels (SpScript) | 3 | Silverman, Ray |
| Rel272 | Advanced Religious Ethics (SpAppl)(W) | 3 | Silverman, Ray |
| Rel295 | Islam (SpComp) | 3 | Rose, D. Greg |
| Rel306 | Universal Doctrines of the New Church II (W)(SpDoc) | 3 | Glenn, Thane |
| SpEd213 | Family and Community Partnership | 3 | Wong, Sarah |
| SpEd313 | Evidence-Based Interventions | 3 | Larcher, Elizabeth Ann |
| Writ101 | Expository Writing (W) | 3 | McKee, Ellen B. |
| Writ101pp | Expository Writing (W) | 3 | Hoffman, Chandra |
| Writ202 | Writing About Literature (W) (IL) | 3 | Cooper, Robin |
| Writ202 | Writing About Literature (W) (IL) | 3 | Cooper, Robin |
| Writ213 | Advanced Rhetoric and Composition (W) | 3 | Glenn, Thane |
| +This course is offered on multiple levels. All students must register on the 100 level. <br> *This course requires a lab fee. <br> The College administration will make every effort to offer the courses listed, but reserves the right to cancel courses if necessary. |  |  |  |

## Spring Term 2023-24 Undergraduate Courses

## Anthropology

Anthropology 110. An Introduction to Cultural Anthropology.
Introduction to the theories and methods of cultural anthropology, and to the concept of culture. Though not a world cultures course, focuses on the basic institutions of culture such as ritual, technology, and progress as predicates for modern human society.
3 Credits.
Anthropology/History 211. Artifacts, Archaeology, and Museums. (W)
Introduction to the theories and methods used to interpret how objects express a society's values, ideas, and attitudes. Includes examination of archaeological method, archaeological and museum ethics, and the use of objects in a museum setting. Substantial use of hands-on projects and Glencairn Museum as a lab. Includes visits to other Bryn Athyn's historic district and other local sites.
3 Credits.

## Biology

Biology 230. Genetics.
Study of the process of heredity at a more advanced level than Biology 122. The course covers concepts of cell division (cell cycle, mitosis \& meiosis), fundamental and extended Mendelian genetics, chromosome mapping in eukaryotes and prokaryotes, the genetics of sex determination and sex chromosomes, chromosomal mutations, extranuclear inheritance; developmental genetics, quantitative genetics, and the genetics of populations and evolution.
Prerequisites: Biology 122, 122L, 123, and 123L.
3 Credits.

Biology 232. Cell Structure and Function.
Study of the structure-function relationship in cells. Illustration of molecular principles upon which cellular structure and function depend. Foundation course for all other molecular biology courses.
Prerequisites: Biology 122, 122L, 123, 123L, and Chemistry 110 and 110L.
3 Credits.
Biology 235. Ecology.
Study of the physical, chemical, and biological processes that determine the distribution and abundance of plants, animals, and microbial life. Energy flow, food webs, adaptation of species, population dynamics, species interactions, nutrient cycling, and ecological succession. This course and the related laboratory must be taken together.
Prerequisites: Biology 122, 122L, 123, and 123L.
3 Credits.
Biology 235 Lab. Ecology Lab.
This course requires a lab fee. This course and the related lecture course must be taken together.
1 Credit.
Biology 250. Microbiology.
Introduction to the morphology, physiology, genetics, and ecology of bacteria and fungi, as well as the structure and replication of viruses. Overview of microorganisms, with emphasis on those organisms
involved in the natural history of human disease. This course and the related laboratory must be taken together.
Prerequisites: Biology 122, 122L, 123, and 123L.
3 Credits.

Biology 250 Lab. Microbiology Lab.
This course requires a lab fee. This course and the related lecture course must be taken together.
1 Credit.

## Biology/Chemistry 315. Principles of Biochemistry.

Protein structure, dynamics, folding, and methods of purification and analysis. Methods of enzymology and a review of representative enzyme mechanisms. Membrane structure and function and the operation of membrane proteins in the electron transport chain and oxidative phosphorylation. A special topic of protein science explored in student projects.
Prerequisites: Biology 123, Chemistry 210, and 210L.
3 Credits.

Biology 380. Research Seminar. (IL, PP)
Students choose topics for senior project proposals and research methods for discipline specific literature searches. Senior project proposals with references are due by end of term. Two presentations are given in fulfillment of the Core public presentation requirement (PP). Discipline-specific resumes and C.V. developed. Course is for biology majors.
Prerequisite: acceptance into the biology major.
1 Credit.

Biology 492. Biology Seminar III.
Public presentation of undergraduate biological research. Required of seniors in the biology major and open to seniors in the ID major who are studying biology.
Prerequisites: Biology 380, 490, and Biology 495.
1 Credit.

## Business

Business/Writing 220. Business Communications. (W)
Business Communications is a workplace-oriented course designed to help students develop and refine the written and oral skills necessary to communicate effectively in professional settings. Students will review the purpose and style of business writing and complete a variety of focused writing exercises based on work settings and scenarios. Students will plan, compose, and analyze letters, memoranda, and electronic messages. They will also prepare and deliver brief oral presentations, collaborate with others, and revise business communication.
Prerequisite: Writing 101.
3 Credits.

Business 257. Principles of Management.
Fundamentals of management including the contributions of F.W. Taylor, Peter F. Drucker, and W. Edwards Deming. Special attention to business ethics, leadership, the Quality Movement, and ISO Teamwork 9000 certification. Group projects, business seminars.
3 Credits.

Business 272. Drone Applications in Business and Science.
Principles of applications of new technology in all possible fields, taking advantage of new FAA rule 107 provisions. The course explores current legislation and FAA rules, current innovation in drone use, limits of current off-the-shelf technologies, creative problem solving and business plan development.
3 Credits.

Business 302. Corporate Social Responsibility.
This course includes application of New Church/Swedenborgian ethical responsibility in business strategic planning and management. Particular focus on corporate leaders who are using an ethical worldview when partnering with government regulators, donating to non-profits through foundations, or managing sustainable supply chains. Students will strengthen their teamwork skills in various class projects. Ethical reasoning theories are drawn from psychology and theology to explain the socially responsible actions of corporate leaders.
3 Credits.
Business 327. International Financial Management.
This course provides an overview of international financial markets as well as presenting key challenges often faced in international financial management. Topics include import and export financing, measuring and managing foreign exchange exposure, international financial markets and banking, issues with raising capital internationally, insurance and taxation issues.
Prerequisites: any economics course and Bus320, or permission of the instructor.
3 Credits.
Business 390. Research Seminar. (IL)
For juniors in the Business Major. Focus on preparing to do the senior capstone project. Explore topics and research questions. Research scholarly sources related to a chosen topic. Formulate draft thesis statement based on interest and research.
2 Credits.

## Chemistry

Chemistry 111. General Chemistry II. (QR)
Continuation of Chemistry 110. Topics include intermolecular forces, physical properties of solutions, chemical kinetics, chemical equilibrium, acids and bases, solubility, thermodynamics, and electrochemistry. This course and the related laboratory must be taken together.
Prerequisite: Chemistry 110 and 110L. Students must pass both Chem 110 and 110L in order to take Chem 111.

3 Credits.

Chemistry 111 Lab. General Chemistry II Lab.
This course requires a lab fee. This course and the related lecture course must be taken together.
Prerequisite: Chemistry 110 and 110L. Students must pass both Chem 110 and 110L in order to take Chem 111L.
1 Credit.

## Communication

Communication 105. Public Speaking. (PP)
Exposure to a variety of speaking situations designed to develop self-confidence. Class work features impromptu and prepared speeches. Work on voice and speech improvement as well as command of body language. Attention to effective strategies for professional presentations and public speaking, both face-toface and online.
3 Credits.
Communication 225. Professional Communication and PR for Contemporary Workplaces. Foundational communication and public relations (PR) skills, with focus on how a communications function operates within an organization. Exploration of the role of communications strategy. Opportunities to turn concepts into real-world work products. Attention to social and digital literacies, content creation and distribution, and cultural differences in global audiences.
Prerequisite: Writing 202 or A-level work in Writing 101.
3 Credits.

## Computer Science

Computer Science/Mathematics 230. Statistics and Data Mining. (QR)
This course builds on what was learned in Mathematics 130 with an eye on big data sets. Techniques include regression and classification methods, culminating in a final project. Throughout the course, the programming language $R$ will be used.
Prerequisites: B- or better in Mathematics 130 or Mathematics 330.
3 Credits.

Computer Science 160. World Wide Web Development.
Introduction to the elements of web site design. The course includes technical aspects of web creation and design considerations for information delivery and usability.
Prerequisite: Computer Science 105 or familiarity with computers.
2 Credits.

Computer Science 260. World Wide Web Languages.
Companion course with Computer Science 160. Projects will involve JavaScript, PHP, and XML.
Prerequisite: Computer Science 180 or Computer Science 206.
Co-requisite: Computer Science 160.
1 Credit.

## Dance

Dance 132/232/332. Jazz Dance.
Beginner (Dance 132) and Intermediate (Dance 232) and Advanced (Dance 332) course in Jazz dance technique. Students learn jazz dance technique and develop creativity, flexibility, coordination, and rhythm. Dan 232 includes choreography projects, and both levels culminate in a public performance at the end-ofterm concert. Course may be repeated once for credit.
Prerequisite for Dance 232: Dance 120, Dance 132, or instructor's permission. Also serves as a PE course. 3 Credits.

Dance 160/260/360. Dance Ensemble. (EE)
A dance repertory course for the performing artist. Rehearsing and performing pieces choreographed by faculty and guest artists. Styles may include contemporary, jazz, hip-hop, ballet, and/or tap. Each student will be involved in several different pieces of choreography. Course culminates in public performance. Dance 260 includes collaboration on a choreography project or a solo choreography project. Dance 360 involves choreographing and teaching a group piece of choreography to the class to be performed at the end of term concert. Course may be repeated for credit.
1.5 Credits.

Dance 241. History of Twentieth-Century American Dance.
Survey of dance forms (social, ballet, modern/contemporary, jazz/musical theatre, tap in America in the $20^{\text {th }}$ century. Course includes readings, lectures, films, discussions, and analysis of individual styles and cultural trends.
3 Credits.

## Earth Science

Earth Science 110. Introduction to Physical Geology and Meteorology.
Introduction to mineralogy; igneous, sedimentary, and metamorphic petrology; rock cycle and structural geology. The evolution of continents Introduction to oceanography. The atmosphere and atmospheric motion, climate, and climatic zones. Earth as a part of the solar system. This course and the related laboratory must be taken together.
Prerequisite or co-requisite: Mathematics 101 (or placement out of Mathematics101).
3 Credits.
Earth Science 110 Lab. Introduction to Physical Geology and Meteorology Lab.
This course requires a lab fee. This course and the related lecture course must be taken together.
1 Credit.

## Economics

Economics 132. Microeconomics. (QR)
Study of the fundamentals of economic analysis with particular emphasis upon consumer demand behavior and the output and pricing decisions of business firms under various market structures. Special attention given to the role of ethics in the behavior of business executives and consumers. Consideration of current issues such as health care, energy policy, and government intervention in the market. Course includes studentled seminars and group projects.
3 Credits.

## Education

Education 128. Introduction to the Theory and Practice of Education.
Aspects of a career in teaching are explored. Topics include: teaching as a profession, educational philosophies, best practices in classroom instruction, and garden-based learning. Students observe classes at the Bryn Athyn Church School, participate in at least three field trips to other schools, and gain basic gardening experience. Opportunities to develop presentation and storytelling skills. 3 Credits.

Education 274. Adolescent Growth and Development: Ages 8-18.
This course explores the physical, intellectual, emotional, and social development of children as they transition through middle childhood into adolescence. Emphasis on how development occurs in diverse contexts (home, school, and community); developmental theories and research that inform practice; and biological and neurological changes happening in the teenage brain.
Prerequisite: Education 128 or Psychology 101.
3 Credits.

## Education 402. Student Teaching. (EE)

Includes at least 12 weeks of combined observation and teaching in an early childhood education classroom setting, supervised by a teacher from Bryn Athyn College Education Department and by a classroom teacher in the cooperating school. Open only to seniors in the education major.
3-12 Credits.

## Field Experience III: Pre-student Teaching.

A continuation of FE II, FE III gives students more independent practice in working with whole class instruction and integrating special needs and ELL students in their assigned classroom. Provides 120 hours of practice teaching hours. Not open to non-majors; third-year students only.
3 Credits.

Special Education 213. Family and Community Partnerships.
This course examines the importance and necessity of collaboration when serving all students, and especially those with disabilities. Addresses the skills and knowledge needed by teachers and interdisciplinary team members. Strategies for collaborating with families, community agencies, educational staff, and other stakeholders will be explored. Students will develop skills for building effective teams, improving communication, problem-solving, advocating and decision-making.
Prerequisite: Special Ed 111.
3 Credits.

Special Education 313. Evidence-based Interventions.
This course examines models of effective specialized instruction in a variety of content areas, with a focus on literacy. Emphasis on using assessment data to inform and guide effective instruction and intervention. Exploration of multi-sensory methods and programs for addressing the needs of students with disabilities within the general education curriculum. Undergraduate students can earn graduate credit by completing additional coursework.
Prerequisite: Special Education 111 and permission of the education department chair.
3 Credits.

## English

Literature courses in this discipline fill the aesthetic requirement of the Core Program. 200-level English courses require Writing 101 as prerequisite. 300+-level English courses require a 200-level English as prerequisite.

English 221. British Literature II. Famous Authors and Fictions of British Literature: 1660-1900. Chronological survey of the development of English literature in England from the late 17th century through the early $20^{\text {th }}$ century. Lecture, discussion, guest speakers, and student reports or projects. Continuation of English 220; English 220 not prerequisite.
Prerequisite: Writing 101.

## English 495. Senior Seminar: Career Preparation.

Focus on professional transition to workplace or graduate school. Guest speakers present recent trends in English studies and in employment for English and Communications majors. Students propose (or present if completed) their capstone work as well as give evidence of facility in the software and technology skills required of BAC English and Communications graduates. Students network with alumni online or face-toface.
1 Credit.

## Experiential Education

Experiential Education 198/298. Internship. (EE)
The internship course is open to students with a 2.5 GPA or above. It is a supervised, pre-professional experience with clear links to a student's academic program. It is conducted primarily or totally outside a regular course classroom, and for which a student earns academic credit. It is organized primarily around an assignment in a work-place situation in which students working under the direction of a supervisor learn hands-on professional skills.
The internship course requires a syllabus, reflective component, and an analytical component (e.g., essay, paper, or presentation). Individual syllabi are retained on the college drive. This course satisfies the EE requirement.
Course may be repeated for academic credit by arrangement.
Credit variable.

## Fine Arts

Fine Arts 205. Introduction to American Architectural History.
An overview of architectural developments in the United States within the larger context of American ideals and historic events. Covers the progression of style and form. Introduces students to architectural concepts and terms. Special attention given to artists influenced by Swedenborg including Daniel Burnham, William Strickland, Harold T. Carswell, A. Page Brown, Theophilus Parsons Chandler, and Langford H. Warren. Students research and present a topic of their choice.
3 Credits.
Fine Arts 241. Building Arts Foundation II.
This course builds upon skills acquired in FA141 Building Arts Foundation I and provides opportunities to practice design principles while further developing the hand skills essential to all craft disciplines. Students are presented with visual problems to solve that relate to various lecture topics. Students use preparatory drawings and models to communicate ideas then execute projects in a variety of materials. Students work independently and in groups to solve design challenges. Emphasis is placed on teamwork, accuracy, and craftsmanship. The collections and models in the Glencairn Museum support these endeavors. This course requires a lab fee.
3 Credits.

Fine Arts 322. Traditional Joinery Design and Production.
This course introduces students to the various techniques traditionally used to join ferrous metal components. Students learn traditional metal joinery techniques, including collars, riveting, slit and drifts, pass-throughs and forge welding. Students are required to produce various forms of joinery and demonstrate the ability to design and construct a metal piece from conceptual drawing to finished product. Emphasis is placed on safety, design and craftmanship.

Prerequisite: Fine Arts 122 and Fine Arts 222.
3 Credits.

## History

History 115. The Medieval World.
Historical survey of medieval Europe from the fall of Rome through the fourteenth century. Particular focus on religion and the role of the church throughout the Middle Ages. Extensive use of primary texts and Glencairn Museum's collections.
3 Credits.

History 205. Africa from Imperialism to Decolonization.
This course examines the history of European imperialism in Africa, independence movements, and consequent challenges in the contemporary world.
3 Credits.
Anthropology/History 211. Artifacts, Archaeology, and Museums. (W)
Introduction to the theories and methods used to interpret how objects express a society's values, ideas, and attitudes. Includes examination of archaeological method, archaeological and museum ethics, and the use of objects in a museum setting. Substantial use of hands-on projects and Glencairn Museum as a lab. Includes visits to other Bryn Athyn's historic district and other local sites.
3 Credits.

History 311. Vengeance and Justice in Medieval Europe.
Exploration of intersecting notions of justice and vengeance in medieval European law, ca. 500-1500. Of special interest is the tension between customary, retributive forms of justice and the development of jurisprudence based on Christianity and ideals of Christian rulership. Includes a survey of select Old Testament and Roman laws.
3 Credits.

## Independent Studies and Honors Contracts

In addition to the listed courses, departments may offer independent studies and honors contracts at the 200level or above in a variety of fields. The purpose of these is to allow well-qualified students to study beyond the regularly offered courses. Independent studies are numbered 299 or 399, depending on the appropriate level, and honors contract courses are designated with a trailing H, such as Math205H. Academic departments are under no obligation to meet requests for independent studies and honors contracts. Students who undertake independent studies must be able to work independently between meetings with the instructor. In order to qualify to take an independent study or honors contract, a student must:

- Have completed at least 31 credits with a GPA of 2.7 or better
- Submit a proposal to the department chair during the week prior to registration for the term in which the independent study or honors contract is to occur.
- Submit an independent study card or honors contract card (signed by the department chair and instructor) to the College Office to be reviewed by the Dean of Academics.
- Create a syllabus together with the instructor and submit it to the College Office before or during registration.


## Interdisciplinary Studies

Interdisciplinary Studies 390. Research Seminar. (IL)
For juniors in the Interdisciplinary Major. Focus on preparing to do the senior essay during senior year. Explore topics and research questions. Research scholarly sources related to a chosen topic. Formulate draft thesis statement based on interest and research.
2 Credits.

## Internships

298/398/498 Internships (in their academic areas) (EE)
Individually arranged career related internships. See the Major Department Head or Director of Internships for details.
3 Credits.

## Latin

Latin 251. Swedenborg's Theological Latin II.
Continuation of Latin 250. Includes examination of original manuscripts and editions.
Prerequisites: Latin 110 and Latin 111 or approval of the instructor.
3 Credits.

## Mathematics

Mathematics 095. Preparation for Quantitative Reasoning.
This course provides additional support for students enrolled in Math101. Topics include translating expressions, building equations, order of operations, and recognizing context. Credit from this course may not be used to satisfy degree requirements.
1 Credit.
Mathematics 101. Introduction to Quantitative Reasoning. (QR)
Introduction to mathematical concepts to improve basic skills in computation, algebra, graphing, and quantitative applications. This course prepares students for other mathematics courses and courses involving quantitative reasoning. Topics include linear modeling, units of measure and currency, and statistical reasoning, and financial topics.
3 Credits.
Mathematics 102. Understanding Mathematics in Society. (QR)
Review of mathematical topics with an emphasis on understanding why certain patterns appear. Topics include sets, number systems, geometry, and basic statistics and probability. Recommended for students in education and philosophy.
Prerequisite: Math 101 or appropriate score on placement test.
3 Credits.

Mathematics 124. Transcendental Functions. (QR)
Basic trigonometric functions, modeling periodic phenomena with trigonometric functions, exponential functions and models, exponential equations, and logarithms. When combined with Mathematics 115, these courses would be equivalent to typical pre-calculus course. Because of duplication of subject matter, students may not receive credit for both Mathematics 120 and 124.

Prerequisite or Co-requisite: Mathematics 115.
1.5 Credits

Mathematics 130. Introduction to Statistics. (QR)
Introduction to data analysis, random variables and their distributions, correlation, and statistical inference. Statistical software used for graphing and data analysis. Independent research project. Recommended for students of business or the social and natural sciences.
Prerequisite: Mathematics 101 or appropriate score on placement test.
4 Credits.

Mathematics 140. Elements of Calculus. (QR)
Derivatives with applications, exponential functions, integration with applications, and functions of several variables. Not recommended for students pursuing a degree in mathematics, engineering, or the physical sciences. Because of duplication of subject matter, students may not receive credit for both Mathematics 140 and Mathematics 150. Mathematics 140 does not fulfill prerequisite requirements for Mathematics 151. Prerequisite: Mathematics 115 or appropriate score on placement test.
3 Credits.
Computer Science/Mathematics 230. Statistics and Data Mining. (QR)
This course builds on what was learned in Mathematics 130 with an eye on big data sets. Techniques include regression and classification methods, culminating in a final project. Throughout the course, the programming language $R$ will be used.
Prerequisites: B- or better in Mathematics 130 or Mathematics 330 .
3 Credits.

Mathematics 250. Calculus III.
Functions of several variables, partial differentiation, multiple integration, vector calculus.
Prerequisite: Mathematics 151.
4 Credits.

## Music

Music 100. College Chorale.
Development and performance of choral repertoire from Renaissance to Modern. Instruction in the development of vocal techniques. Course may be repeated for credit.
1 Credit.

## Music 113. Music Theory I.

Study of music theory and harmony, progressing from basic notation to advanced musical structures. Includes styles from the $18^{\text {th }}-20^{\text {th }}$ centuries.
3 Credits.

## Nutrition

Nutrition 110. Principles of Nutrition.
Principles of Nutrition explores how nutrients in food relate to human health and disease prevention. Topics discussed include current US dietary guidelines and recommendations, digestion and metabolism of major nutrients, nutrition at various stages of the life cycle (maternal, infant, childhood, adolescent, adulthood, later maturity), the relationship of socioeconomic status, culture, and religious practices to food choices, physical
activity and nutrition, and the relationship of diet to health and disease. This course is especially beneficial for those who will be entering health-care or food related professions.
3 Credits.

## Philosophy

## Philosophy 101. Critical Thinking.

Development of students' reasoning skills through analysis and evaluation of arguments. Diagraming arguments, identifying mistakes in reasoning, and writing arguments. Emphasis on issues encountered in everyday experience and in courses across the curriculum, primarily through inductive and deductive logic. 3 Credits.

## Philosophy 102. Introduction to Philosophy. (Worldviews)

Survey of some major philosophers and theories in metaphysics, epistemology, and the philosophy of religion.
3 Credits.
Philosophy 105. Work and Meaning. (EE)
Using materials in the philosophy of work and vocation, students explore who they are and how they might be called to serve others in both for-profit and non-profit contexts. Includes the use of self-exploration tools to find one's strengths. Emphasis on the transferable skills of liberal arts education within a New Church framework while considering a variety of philosophical and spiritual perspectives. Students explore answers to the following questions: Who am I? What do I want to do? What ought I to do? What does the world need? 3 Credits.

Philosophy 311. Topics in Contemporary Philosophy II.
Will examine three areas in contemporary philosophy: experimental philosophy, philosophy of science (the "science wars"), and philosophy of religion.
Prerequisite: Philosophy 102.
3 Credits.
Philosophy 340. Bioethics. (Moral)
A philosophical exploration of the ethical issues pertaining to the application of biological information and technology to the generation, alteration, preservation, and destruction of human life and aspects of our environment. Issues to be considered include: reproduction, euthanasia, genetic screening and therapy, experimentation with human and animal subjects, bio enhancement, ownership and nature, distributive justice, and integrity in publication.
Prerequisite: Philosophy 102 and any 100-level Biology course.
3 Credits.

## Physical Education

Physical Education 129. Badminton.
Basic instruction in skill techniques, rules, strategies, and competition in badminton. Course may be repeated once for credit.
1 Credit.

Physical Education 170. Frisbee Sports.
Introduction to the fundamental skills and strategies of organized Frisbee play. This course is designed to further develop individual skills for the beginning player. Frisbee requires development of the following individual skills: throwing/passing/catching, running/cutting and marking. Course may be repeated once for credit.
1 Credit.

## Physics

Physics 211. Principles of Physics II. (QR)
Continuation of Physics 210. Calculus-based introduction to classical electricity, capacitance, current, resistance, and circuits. Also magnetism, inductance, electromagnetic oscillations, optics, and introduction to modern physics. This course and the related laboratory must be taken together.
Co-requisites or Prerequisites: Mathematics 150 and Physics 210 and 210L.
3 Credits.

Physics 211 Lab. Principles of Physics II Lab.
This course requires a lab fee. This course and the related lecture course must be taken together.
1 Credit.

## Political Science

Political Science 101. Introduction to Politics and Governance. (Civil)
Examines the discipline of political science and the concepts involved in the study of politics and governance. Surveys regime types and the role and function of political institutions and organizations. Focus on the potential for thinking about civic and political issues from a religiously-informed perspective.
3 Credits.
Political Science 160. Introduction to Criminal Law and Justice.
Introduction to the American criminal justice system. Provides an overview of the many aspects of criminal justice including crime, policing, the courts, theories of punishment, incarceration, juvenile justice, and domestic violence. Includes a consideration of a variety of viewpoints such as the perspectives of the perpetrator, victims, the police, community members, and the courts.
3 Credits.

## Psychology

Psychology 205. Social Psychology. (PP)
This course examines how people think about, influence, and relate with one another. It investigates such topics as the social self, person perception, attitudes, persuasion, conformity, group processes, gender, culture, prejudice, aggression, altruism, interpersonal attraction, and love. Public Presentation skills emphasized.
3 Credits.
Psychology 215. Organizational Psychology.
This course applies psychological science to the dynamics of professional organizations. It considers such topics as job analysis, psychological assessment, personnel decisions, employee training, human factors, organizational development, teamwork and leadership, motivation and satisfaction, work stress, and
organizational ethics. The course will prepare students for post-graduate work in personality, social, and organizational psychology or immediate employment in industrial, organizational, and business settings. Prerequisite: Psychology 101
3 Credits.

Psychology 220. Cognitive Psychology.
This course features cognitive neuroscience and examines such topics as perception, attention, consciousness, memory, knowledge, imagery, language, problem-solving, judgment, reasoning, decision-making, intelligence, creativity, and wisdom.
Prerequisite: Psychology 101 or department chair permission.
3 Credits.

Psychology 330. Research Methods.
The investigation of psychology as a science with a focus on the qualitative and quantitative approaches to research in the area of psychology. It examines strategies for establishing validity in descriptive, relational, and experimental design in the framework of ethical research. Emphasis will be placed on critical reading and analysis of previously published scientific research. Students receive practice in designing, conducting, analyzing, interpreting the results of research studies, and writing reports in APA style.
3 Credits.

## Religion

Religion 115. Introduction to New Church Doctrine on Life After Death. (Doctrinal)
New Church teachings on the life after death studied in their own context, as well as related material, which may include a comparison of teachings from other religions and cultures on the subject, as well as reference to the near-death experience. Some version of Swedenborg's Heaven and Hell will be the central focus.
3 Credits.
Religion 125. The Holy Scripture. (Doctrinal)
The symbolic nature of the Word and the spiritual meaning within. The importance of the literal meaning and its interpretation. The Word in heaven and the church. Dual expressions in the Word. Heresies. The Lord and the Word. The Word in very ancient times. The universal church. The necessity of revelation. Illustrations drawn throughout from the Old and New Testaments. Text: The Doctrine of the Sacred Scripture. 3 Credits.

## Religion 222. The Gospels. (Scriptural)

Detailed study of the four individual Gospels with attention to similarities and distinctions, historical context, and relationship to the Old Testament. Examination of the literal meaning and its significance to the modern life. Special attention to the nature of the First Advent and the testimony concerning Jesus Christ.
3 Credits.

Religion 272. Advanced Religious Ethics. (W, Applied)
Advanced study of the Ten Commandments as they appear in the religious writings of Hinduism, Buddhism, Judaism, Christianity, Islam, and other world faiths. Study of the literal and spiritual level of each commandment using selected texts from sacred and secular sources. Students encouraged to draw connections between the various levels of the commandments and their own lives.
3 Credits

Religion 295. Islam. (Comparative)
Study of Islam: Muhammad and the origins of Islam, the Qur'an and Hadith, theology and practices, sects and schools. Comparison with New Church perspective.
3 Credits.
Religion 306. Universal Doctrines of the New Church II. (W, Doctrinal)
Continuation of Religion 305. Topics include faith, charity, free will, repentance, reformation and regeneration, imputation, baptism, and the holy supper. Special focus on the Second Advent and the New Church: what does God's coming entail? Text: True Cbristian Religion.
3 Credits.

## Writing

Writing 101. Expository Writing. (W)
Development of informative, analytic, and persuasive writing. Emphases on grammatical control, precision of language, consideration of audience, rhetorical strategies, revision, information literacy, and articulation, development, and support of thesis. Three to four formal essays, including substantial revision work. Individual conferences with instructor to discuss students' writing. Required of first year students. Non-native speakers who want to take Writing 101 in their first year need permission of the Language and Literature department chair.
3 Credits.
Writing 202. Writing About Literature. (W, IL)
Second-year requirement of all students. Analytic study of 3 or more literary genres, with emphases on writing and research. Assumes basic skills in writing and information literacy covered in Writing 101. Three formal essays, including substantial revision. One longer essay and its accompanying research process require locating, evaluating, and incorporating multiple secondary sources. Individual conferences with instructor to discuss students' writing. Required of second-year students. Dean's permission required for deferral to third year.
Prerequisite: Writing 101.
3 Credits.
Writing 213. Advanced Rhetoric and Composition. (W)
Intensive study of writing for students interested in developing rhetorical skills in composition. Attention to concepts of classical rhetoric and to issues arising in the context of contemporary cultural environments and communications practices, including online environments.
Prerequisite: Writing 101.
3 Credits.
Business/Writing 220. Business Communications. (W)
Business Communications is a workplace-oriented course designed to help students develop and refine the written and oral skills necessary to communicate effectively in professional settings. Students will review the purpose and style of business writing and complete a variety of focused writing exercises based on work settings and scenarios. Students will plan, compose, and analyze letters, memoranda, and electronic messages.
They will also prepare and deliver brief oral presentations, collaborate with others, and revise business communication.
Prerequisite: Writing 101.
3 Credits.

