## BRYN ATHYN COLLEGE

## 2019-20 <br> Course Bulletin

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| 2019 |  |  |  |
| :---: | :---: | :---: | :---: |
| May | 30 | Thurs | Summer Session 1 Begins |
| July | 2 | Tues | Summer Session 1 Ends |
|  | 9 | Tues | Summer Session 2 Begins |
| August | 8 | Thurs | Summer Session 2 Ends |
|  | 20 | Tues | Administration and Faculty meetings |
|  | 21 | Wed | Faculty retreat |
|  | 25 | Sun | New Students (US and International) arrive on campus |
|  | 26-27 | Mon-Tues | Orientation for new students |
|  | 27 | Tues | All returning students arrive on campus |
|  | 27 | Tues | Open advising for all students |
|  | 27 | Tues | 7:00 pm: President's Welcome (dessert) for all students (Glencairn) |
|  | 28 | Wed | 8:10 am: Fall Term classes begin |
| September | 2 | Mon | Labor Day holiday |
| October | 4 | Fri | Charter Day |
|  | 17 | Thurs | All college in-service day-Majors and Career Day |
|  | 21-30 | Mon-Wed | Registration for Winter Term |
| November | 8 | Fri | Final day of Fall Term classes |
|  | 11 | Mon | Reading day |
|  | 12 | Tues | Exams begin |
|  | 15 | Fri | Fall Term ends after Friday exams |
|  | 28 | Thurs | Thanksgiving holiday |
| December | 1 | Sun | Resident students return |
|  | 2 | Mon | Winter Term classes begin |
|  | 20 | Fri | Christmas vacation begins after Friday classes |
| 2020 |  |  |  |
| January | 5 | Sun | Resident students return |
|  | 6 | Mon | Classes resume |
|  | 20 | Mon | Martin Luther King, Jr. holiday |
|  | 22-31 | Wed-Fri | Registration for Spring Term |
| February | 24 | Mon | Final day of Winter Term classes |
|  | 25 | Tues | Reading day |
|  | 26 | Wed | Exams begin |
|  | 29 | Sat | Winter Term ends after Saturday exams |
| March | 10 | Tues | Resident students return |
|  | 11 | Wed | Spring Term classes begin |
|  | 23-27 | Mon-Fri | Phase I Registration |
|  | 30-4/3 | Mon-Fri | Phase II Registration |
| April | 10 | Fri | Good Friday holiday |
|  | 20-24 | Mon-Fri | Phase III Registration |
| May | 20 | Wed | Final day of Spring Term classes |
|  | 21 | Thurs | Reading day |
|  | 22 | Fri | Exams begin |
|  | 25 | Mon | Memorial Day Holiday |
|  | 27 | Wed | Final day of exams |
|  | 29 | Fri | 6:30 pm: Graduation Dinner (Brickman Center) |
|  | 30 | Sat | 10:00 am: Graduation (Asplundh Field House) |
| June | 4 | Thurs | End of Year Faculty Meeting and End of Year Faculty and Staff Gathering |

## 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.

Each term, choose three or four academic courses at the appropriate level. Full-time students must take at least 9 academic 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 31 credits per year. Full-time tuition covers 14.5 credits per term; additional payment is necessary for any more. 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 (or Writing 100 as recommended)
- Math 101 (or test out of it via Math placement test)
- At least 9 academic credits each term 100-level courses unless you get permission for upper-level courses
- 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
- At least 9 academic credits each term 100- or 200-level courses unless you get permission for higherlevel courses
- To advance to third year status, you must complete residency requirements and accumulate at least 62 credits. Fourth year status requires completion of residency requirements, accumulating at least 93 credits, and acceptance into a major program.


## Third and Fourth Year Requirements

- One religion course each year (not $100-\mathrm{level}$ )
- At least 9 academic credits each term
- Graduation requires completion of major, core, and residency requirements and completing at least 124 credits (some majors may require more). Additionally, a minimum of 120 credits must be academic (some courses carry non-academic credit, mainly PE courses).

In addition to the residency requirements listed above, students interested in the following majors should register for the courses listed below in their first year:

- Biology: Bio122 \& 123, Chem101 and/or Chem110\&111
- Education: Ed128, ESci110, Geog110, any 100-level History course, two math courses, Phil102, Rel101 or 110
- English: n/a (Recommended: Eng105)
- ID: 100-level requirements/recommendations from the appropriate areas
- History: any 100 -level history courses (Recommended: 100-level anthropology, geography, political science, sociology courses)
- Psychology: Psyc101 (Recommended: Math130 and 100-level anthropology and/or sociology)
- Religion: Rel110 and either Rel115 or Rel125


## Worksheets for Majors:

If you are interested in a particular major, please see the worksheets online. Major requirement worksheets are available on our website at the following location: https://brynathyn.edu/academics/undergraduate/majors/.

## Graduation Applications:

Are you planning on graduating this May? Try filling out the graduation application to see what courses you might be missing. Graduation Applications are available on our website at the following location:
https://brynathyn.edu/academics/undergraduate/major-and-minor-forms/.

## Student Online Registration Instructions:

- Go to: https://www.BrynAthynSonis.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

See the Undergraduate Student Handbook online for details.
Your advisor will guide you through the process of setting up an independent study or internship. Please 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.

## Core and Major Information

See the Academic Programs Bulletin for information regarding the Core Program and Majors.

# Fall Term 2019-20 Undergraduate Course List 

As of 4/21/2019. (Independent Study and Internship courses not listed).

| COURSE | COURSE DESCRIPTION | CREDITS | INSTRUCTOR |
| :---: | :---: | :---: | :---: |
| Bio122(0) | Introduction to Biology: Genetics and Evolution | 3 | Staff |
| Bio122(1) | Introduction to Biology: Genetics and Evolution | 3 | Bryntesson, A. Fredrik |
| Bio122(2) | Introduction to Biology: Genetics and Evolution | 3 | Bryntesson, A. Fredrik |
| Bio122L(0)* | Introduction to Biology: Genetics and Evolution Lab | 1 | McMackin, Grace Rose |
| Bio122L(1)* | Introduction to Biology: Genetics and Evolution Lab | 1 | McMackin, Grace Rose |
| Bio122L(2)* | Introduction to Biology: Genetics and Evolution Lab | 1 | Evans, Stella R. |
| Bio122L(3)* | Introduction to Biology: Genetics and Evolution Lab | 1 | McMackin, Grace Rose |
| Bio210 | Human Anatomy and Physiology I | 3 | Higgins, Ed |
| Bio210L(0)* | Human Anatomy and Physiology I Lab | 1 | Higgins, Ed |
| Bio210L(1)* | Human Anatomy and Physiology I Lab | 1 | Higgins, Ed |
| Bio230 | Genetics | 3 | Bryntesson, A. Fredrik |
| Bio373(0)* | Biological Laboratory Techniques: Molecular Biology | 2 | Evans, Stella R. |
| Bio373(1)* | Biological Laboratory Techniques: Molecular Biology | 2 | Evans, Stella R. |
| Bio490 | Biology Seminar I (IL) | 1 | Higgins, Ed |
| Bus/Wrt220 | Business Communications (W) | 3 | Rogers, Elizabeth |
| Bus141 | Accounting I | 3 | King, Ethan |
| Bus254 | Principles of Marketing | 3 | Swiski, Mark |
| Bus267 | Introduction to Sports Management | 3 | Shute, Dick |
| Bus305 | Business Seminar | 1.5 | King, Ethan |
| Bus320 | Financial Management (QR) | 3 | Waltrich, Christopher |
| Bus493 | Senior Literature Review | 2 | King, Ethan |
| Bus494 | Senior Seminar I | 1 | Synnestvedt, Dan |
| Chem101 | Introduction to Chemistry | 3 | Bedford, Allen |
| Chem210 | Organic Chemistry I | 3 | Bedford, Allen |
| Chem210L(0)* | Organic Chemistry I -Lab | 1 | Bedford, Allen |
| Chem210L(1)* | Organic Chemistry I -Lab | 1 | McMackin, Grace Rose |
| Comm105 | Public Speaking (PP) | 3 | Bernhardt, Suzanne |
| CS/Math321 | Introduction to Numerical Methods | 3 | Blair, Max |
| CSci105 | Introduction to Computer Systems | 3 | Simonetti, Neil |
| Dan160/260/360+ | Dance Ensemble (EEc) | 1.5 | Bostock, Jessica |
| Dan240 | Creative Movement and the Young Child | 1.5 | Bostock, Jessica |
| Dan332 | Choreography \& Composition | 3 | Bostock, Jessica |
| Dan493 | Senior Literature Review | 2 | Bostock, Jessica |
| Econ131 | Macroeconomics (QR) | 3 | Staff |
| Ed217 | Language, Literacy, and Numeracy | 3 | Phillips, Nina Gunther |
| Ed271 | Introduction to Early Childhood Education | 3 | Phillips, Nina Gunther |
| Ed322 | Social Studies and the Young Child | 3 | Phillips, Nina Gunther |
| Ed324 | Science and the Young Child | 3 | Staff, |
| Ed402 | Student Teaching (EE) | 12 | Phillips, Nina Gunther |
| Eng221 | English Literature Survey II | 3 | King, Kristin |
| Eng360 | Victorian Literature (IL) | 3 | King, Kristin |
| EnSci105 | Introduction to Sustainability | 3 | Potapov, Eugene R. |
| EnSci105L* | Introduction to Sustainability | 1 | Potapov, Eugene R. |


| FA101 | Art History: Caves to Cathedrals (IL) | 3 | Kline, Jonathan D. |
| :---: | :---: | :---: | :---: |
| FA120* | Metal Work I | 3 | Kline, Jonathan D. |
| FA128* | Glass Painting | 3 | Leap, Kenneth |
| FA140+* | Drawing and Painting | 3 | Gyllenhaal, Martha |
| FA155* | Introduction to Craft Practice | 3 | Hartley, Stephen E. |
| FA205* | Introduction to American Architectural History | 3 | Hartley, Stephen E. |
| FA240+* | Intermediate Painting | 3 | Gyllenhaal, Martha |
| FA252* | Introduction to Welding and Machine Work | 3 | Staff |
| FE1 | Field Experience I: Observation | 2.5 | Phillips, Nina Gunther |
| FESpEd | Field Experience in Special Eduation | 3 | Wong, Sarah |
| Geog110 | World Regional Geography | 3 | Yardumian, Aram |
| Germ101 | Introductory German I | 3 | Lawing, Sean |
| Hist248 | The Medieval World | 3 | Lawing, Sean |
| Hist305 | Reacting to the Past: Revolution | 3 | Rose, D. Greg |
| HSoc401 | Capstone Seminar I (IL) | 3 | Yardumian, Aram |
| ID494 | Senior Seminar I | 1 | Synnestvedt, Dan |
| Math095(0) | Preparation for Quantitative Reasoning | 1 | Genzlinger, Maret |
| Math095(2) | Preparation for Quantitative Reasoning | 1 | Genzlinger, Maret |
| Math101 | Introduction to Quantitative Reasoning (QR) | 3 | Simonetti, Neil |
| Math140 | Elements of Calculus (QR) | 3 | Bedford, Allen |
| Math150(0) | Calculus I | 3 | Bongers, Caira |
| Math150(1) | Calculus I | 3 | Bongers, Caira |
| Math150L(0) | Calculus I Lab | 1 | Bongers, Caira |
| Math150L(1) | Calculus I Lab | 1 | Bongers, Caira |
| Math330 | Introduction to Probability Theory | 3 | Bongers, Caira |
| Math493 | Senior Literature Review | 2 | Simonetti, Neil |
| Math494 | Senior Seminar I | 1 | Synnestvedt, Dan |
| Mus100 | College Chorale | 1 | Bier, Graham |
| PE112 | Team Sports for Fun | 1 | Bryntesson, Hilary J. |
| Phil/PS220 | Political Thought (Civil) | 3 | Synnestvedt, Dan |
| Phil102 | Introduction to Philosophy (Worldview) | 3 | Latta, Marcy |
| Phil493 | Senior Literature Review | 2 | Synnestvedt, Dan |
| PSci211 | Comparative Government (Civil) | 3 | Rose, D. Greg |
| Psyc101 | Introductory Psychology | 3 | Rogers, Kiri K. |
| Psyc201 | Abnormal Psychology | 3 | Rogers, Kiri K. |
| Psyc203 | Personality Theory | 3 | Frey, Kurt |
| Psyc204 | Human Development: Lifespan | 3 | Frey, Kurt |
| Psyc205 | Social Psychology (PP) | 3 | Frey, Kurt |
| Psyc341 | Human Development: Adult Altruism (EE)(Moral) | 3 | Nash, Laura |
| Psyc490 | Research Methods in Psychology (IL) | 3 | Cavallo, Fernando |
| Rel101(0) | Introduction to New Church Doctrines (SpDoc) | 3 | Genzlinger, Matthew |
| Rel101(1) | Introduction to New Church Doctrines (SpDoc) | 3 | Glenn, Thane |
| Rel101(2) | Introduction to New Church Doctrines (SpDoc) | 3 | Genzlinger, Matthew |
| Rel101(3) | Introduction to New Church Doctrines (SpDoc) | 3 | Glenn, Coleman |
| Rel101(4) | Introduction to New Church Doctrines (SpDoc) | 3 | Schnarr, Grant |
| Rel101(5) | Introduction to New Church Doctrines (SpDoc) | 3 | Glenn, Coleman |
| Rel110 | Introduction to Systematic Theology (SpDoc) | 3 | Frazier, Scott Innes |


| Rel220 | The Torah (SpScript) | 3 | Frazier, Scott Innes |
| :--- | :--- | :--- | :--- |
| Rel225 | Spiritual Interpretation of the Bible (SpScript) | 3 | Schnarr, Grant |
| Rel272 | Advanced Religious Ethics (SpAppl) | 3 | Silverman, Ray |
| Rel273 | Religion and Marriage (Doc)(W) | 3 | Silverman, Ray |
| Rel330 | Sacred Geometry (SpAppl) | 3 | Cole, Stephen |
| Rel372 | Spiritual Development for Educators (Applied) | 3 | Silverman, Ray |
| Rel380 | History of New Church Doctrine (IL)(SpAppl) | 3 | Cole, Stephen |
| Soc110 | Introduction to Sociology | 3 | Anderson III, Samuel |
| Span101 | Introductory Spanish I | 3 | Staff |
| SpEd111 | Introduction to Special Education | 3 | Simons, India |
| SpEd331 | Classroom Management and Behavioral Support | 3 | Ballard, Kelly M. |
| SpEd334 | Assistive Technology in the Classroom | 1 | Goldynia, Kristine |
| Thea120 | Set Design and Production (EE) | 3 | Haus-Roth, Naomi |
| Writ100 | Academic Writing | 3 | Nash, Abbey |
| Writ101(0) | Expository Writing (W) | 3 | Latta, Marcy |
| Writ101(1) | Expository Writing (W) | 3 | Latta, Marcy |
| Writ101(2) | Expository Writing (W) | 3 | Glenn, Thane |
| Writ202(0) | Writing About Literature (W) (IL) | 3 | Cooper, Robin |
| Writ202(3) | Writing About Literature (W) (IL) | 3 | Cooper, Robin |
| Writ212 | Creative Nonfiction Writing (W) | 3 | Hoffman, Chandra |

+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.

## Fall Term 2019-20 Undergraduate Courses

## Biology

Biology 122. Introduction to Biology: Genetics and Evolution.
Introduction to principles of genetics and evolution; one of a two-course gateway series that is required for prospective biology majors. Includes Mendelian and non-Mendelian inheritance, quantitative genetics, evolution, natural selection, genetic drift, kin selection, speciation, molecular evolution, and phylogenetic analysis. Course concludes with a survey of the Kingdoms of life. 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 and 123, with a grade of "C" or better in each. 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 230. Genetics.
Study of the process of heredity at a more advanced level than Biology 122. A problem-solving, seminaroriented course integrating principles of evolution, classical Mendelian genetics, non-Mendelian inheritance patterns, chromosome mapping and mutations, sex determination, extra nuclear inheritance, and the following subcategories of genetics: behavioral, population, evolutionary and conservation. Prerequisites: Biology 122 and 123 .
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, genomic structure analysis, proteomics, bioinformatics, protein expression and analysis, and culturing and identifying microbiological organisms. Laboratory reports and scientific writing skills integral. This course requires a lab fee.
Co-requisite or prerequisite: 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 encouraged to read and present reviews of 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.
1 Credit.

## Business

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/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 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 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 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 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 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.

## 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 450 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.
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.
1 Credit.

## Communication

Communication 105. Public Speaking. (PP)
Exposure to a variety of speaking situations designed to address inhibitions and develop self-confidence. Class work features impromptu and prepared speeches, as well as oral interpretation of literature and choral speaking. Work on voice and speech improvement as well as command of body language.
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.

Computer Science/Mathematics 321. Numerical Methods.
Finite differences, interpolation, solutions of equations, numerical integration, curve fitting, linear equations, numerical solutions of differential equations.
Prerequisite: Mathematics 250 and competence in programming. Computer Science 180 recommended. 3 Credits.

## Dance

Dance 160/260/360. Dance Ensemble. (EEC)
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 240. Creative Movement and the Young Child.
This course will explore ways in which children develop through creative movement activities based on developmentally appropriate practice. Special emphasis will be placed on integrating creative movement with other learning activities. Students will have the opportunity to work on projects that incorporate creative movement with their own areas of interest as potential teachers/caregivers. Students will also explore multicultural elements of dance and movement.
1.5 Credits.

## Dance 332. Choreography \& Composition. (EEC)

Focuses on the process of creating original dance compositions. Explores the elements necessary to dance composition, such as time, space, energy, form, design, and dynamics through improvisational exercises, the manipulation of movement, and the development of critical and analytical thinking. Students will write extensively throughout the course in the form of personal reflections, critical analysis of readings, and reviews of performances. Students will compose a solo piece of choreography, accompanied by a statement of purpose for their piece and a reflective essay on the process, which will be performed at the end of the term. Prerequisites: Two terms of Dan 131 and/or 231 or instructor's permission. 3 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 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 217. Language, Literacy, and Numeracy.
This course prepares students for their role in the early childhood classroom. Many opportunities for application of best practices. Includes theories of language development. Special attention given to emergent language and language-rich environments. 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 322. Social Studies and the Young Child.
Emphasis on the skills and attitudes taught within social studies and developed in early childhood programs. Special attention to state standards as well as New Church competencies through the study of units, multicultural experiences, and the methods and materials for teaching social studies. Contains theory and practice of Garden-based Learning. Open only to third year students.
Prerequisites: Education 128 or 271.
3 Credits.

Education 324. Science and the Young Child.
Students explore a variety of activities suitable for young children in the context of a garden-based curriculum and examine theories of cognitive development as they relate to the teaching of science. Emphasis on the nature of science, how young children perceive and conceptualize the world around them, and an inquiry approach to teaching science.
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.

## English

English 221. English Literature Survey II.
Chronological survey of the development of English literature in England from the late 17 ${ }^{\text {th }}$ century through the early $20^{\text {th }}$ century. Lecture, discussion, guest speakers, student reports or projects, research paper on a chosen period or author. Continuation of English 220; English 220 not prerequisite.
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 form of the novel.
Prerequisite: Any 200-level English course.
3 Credits.

## Environmental Science

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.

## 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 learning plan, reflective component, and an analytical component (e.g., essay, paper, or presentation). Individual learning plans are retained in the office of Internship. This course satisfies the EE requirement.
Course may be repeated for academic credit by arrangement.
Credit variable.

## Field Experience

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 with exceptional children, experience the different types and levels of service delivery, and reflect on how, when, and why specific evidence-based practices are implemented. Student will start in the "Observation" phase and gradually take on increased 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.

## 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 120. Metal Work I.
Introduction to basic metalworking techniques in fine metals, including cutting and piercing, soldering, chain links, and bezel settings.
This course requires a lab fee.
3 Credits.

Fine Arts 128. Stained Glass Painting.
Introduction to traditional and innovative techniques in glass painting. 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 155. Introduction to Craft Practice.
This course introduces students to the various building arts practiced at Bryn Athyn College - metal, glass, stone and wood. Students complete projects in all four disciplines learning the properties, techniques, and creatives possibilities of each. This introduction helps students choose a craft specialization for their major. (at present the two options are metal and glass).
This course requires a lab fee.
3 Credits.

Fine Arts 240. Intermediate Painting.
Introduction of more materials and techniques as well as more advanced use of concepts learned in Fine Arts 140.

This course requires a lab fee.
Prerequisite: Fine Arts 140.
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.

## 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.

## German

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

## History

History 248. 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. Use of primary texts and Glencairn Museum's collections. Students participate in Glencairn Museum's Medieval Festival.
3 Credits.
History 305. Topics in History.
Examination of a selected historical theme or time period. Specific title announced in the course bulletin when offered. May be repeated when different topics are offered.
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

In addition to the listed courses, all areas offer independent studies numbered 299 or 399 with variable credit. The purpose of an independent study is to allow well-qualified students to study beyond the regularly offered courses. Students who undertake independent studies must be able to work independently between meetings with the instructor and have completed a minimum of 33 credits with a GPA of at least 2.70. Planning ahead is necessary: independent study proposals, syllabi, and required registration paperwork must be completed well before the term in which the study is to occur. Full details can be found in the undergraduate student handbook.

## Interdisciplinary Studies

Interdisciplinary Studies 494. Senior Seminar I.
For seniors in the Interdisciplinary Major. Focus on developing a spiritual perspective on the student's capstone project using Swedenborgian and other principles.
Prerequisite: C- or better in Interdisciplinary Studies 390.
1 Credit.

## 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 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.

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 330. Introduction to Probability Theory.
Topics include probability spaces, random variables, discrete and continuous distributions, joint distributions, correlation, and central limit theorems. Classical statistical inference will be introduced. This course has a computational component and can be used to fill a requirement in the Computer Science minor or ID area. Prerequisite: Mathematics 151. Mathematics 240 recommended.
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.

Mathematics 494. Senior Seminar I.
For seniors in the Mathematics Major. Focus on developing a spiritual perspective on the student's capstone project using Swedenborgian and other principles.
Prerequisite: C- or better in Mathematics 390.
1 Credit.

## 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.

## Philosophy

Philosophy 102. Introduction to Philosophy. (Worldview)
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 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.
3 Credits.

## Physical Education

Physical Education 112. Team Sports for Fun.
A survey of a range of team sports including for example, soccer, volleyball, lacrosse, ultimate, basketball, floor hockey. Student interest accommodated. Course may be repeated once for credit.
1 Credit.

## 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.

## 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 203. Personality Theory.
Examination of both classical and current theories of personality. Focus on understanding terms and concepts of personality as well as their application to situational contexts.
Prerequisite: Psychology 101 or department chair permission.
3 Credits.
Psychology 204. Human Development: Lifespan.
Study of human development, focusing on the most significant changes that occur across the lifespan. Topics include theories of physical-motor, cognitive, language, creative, social, emotional, moral, and spiritual development.
Prerequisite: Psychology 101 or department chair permission.
3 Credits.

Psychology 205. Social Psychology. (PP)
Study of behavior and cognition in social contexts. Topics include aggression, altruism, influence, love, prejudice, and conformity. Swedenborgian concepts of love, charity, and obedience analyzed. Public Presentation skills emphasized.
Prerequisite: Psychology 101 or department chair permission.
3 Credits.

Psychology 341. Human Development: Adult 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.
Prerequisite: Two psychology courses.
3 Credits.
Psychology 490. Research Methods 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, Psychology 320, 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, and marriage. Presupposes a moderate familiarity with New Church teachings.
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 225. Spiritual Interpretation of the Bible. (Scriptural)
The Bible is more than a book of stories and laws. Exploration of the deeper symbolic meanings reveal that it is a story about individual spiritual development and growth. Addressing both Scriptures and personal application, with emphasis on the use of Swedenborg's science of correspondences, students uncover the hidden depths of a variety of biblical stories, which elucidate particular insight and meaning to individual spiritual growth and life.
3 Credits.
Religion 272. Advanced Religious Ethics. (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 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 330. Sacred Geometry. (Applied)
Study of the principles underlying the Divine order inherent in natural forms and the application of those principles to the symbolic meaning of number and geometric form in art and architecture. Classical architecture explicitly invoked symbolic geometric principles in design. The doctrine of correspondence connects the ancient understanding of symbolism to New Church ideas about the order of the cosmos. Topics include: qualitative number, symbolic proportions, and the doctrines of order, influx, degrees, form, and correspondences. Combination of classroom lecture with compass and straight-edge constructions. 3 Credits.

## Religion 372. Spiritual Development for Educators (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. 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.

## Special Education

Special Education 111. Introduction to Special Education.
An overview of key concepts, theories and practices of special education. Course begins with a role-playing game in which students learn about the milestone legislation, IDEA. Attention is given to the social and historical underpinnings of today's special education programming, as well as to the various types of learning needs in any given classroom. Students will learn to view "disabilities" from differing perspectives and gain appreciation for the variety 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).
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.

## 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, spelling, and punctuation instruction and practice, in conjunction with an introduction to the structure and process of academic writing. Required only for provisionally admitted first-year students before advancement to Writing 101.

3 Credits.
Writing 101. Expository Writing. (W)
Development of informative, critical, 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 five formal essays total, including substantial revision.
Individual conferences with instructor to discuss student's writing. Required of first year students. Non-native speakers of English may take Writing 101 sophomore year.
3 Credits.
Writing 202. Writing About Literature. (W, IL)
Analytic study of 2-3 literary genres, with emphases on writing and research. Assumes basic skills in writing and information literacy covered in Writing 101. Three papers, including substantial revision. One longer paper and its research process require locating, evaluating, and incorporating multiple secondary sources. Individual conferences with instructor to discuss student's writing. Required of sophomores.
Prerequisite: Writing 101.
3 Credits.

Writing 212. Creative Nonfiction Writing (W)
Study of contemporary creative nonfiction-the use of traditional literary devices to express factual content. Workshop-style course includes the creative memoir, the humorous anecdote, artistic biography, and the personal interview. Course also addresses imaginative text-messaging, effective emailing and the art of blogging. Students read representative writers, critique each other's papers, and learn about the ethics of public discourse, especially in relation to the opportunities and challenges of the digital revolution and the World Wide Web.
Prerequisite: Writing 101.
3 credits.

## Winter Term 2019-20 Undergraduate Course List

As of $4 / 21 / 2019$. (Independent Study and Internship courses not listed).

| COURSE | TITLE | CREDITS | INSTRUCTOR |
| :---: | :---: | :---: | :---: |
| Anth213 | World Pre-History | 3 | Yardumian, Aram |
| Anth320 | Genocide | 3 | Yardumian, Aram |
| Bio123(0) | Introduction to Biology: Molecular Biology | 3 | Bryntesson, A. Fredrik |
| Bio123(1) | Introduction to Biology: Molecular Biology | 3 | Bryntesson, A. Fredrik |
| Bio123L(0)* | Introduction to Biology: Molecular Biology Lab | 1 | McMackin, Grace Rose |
| Bio123L(1)* | Introduction to Biology: Molecular Biology Lab | 1 | McMackin, Grace Rose |
| Bio123L(2)* | Introduction to Biology: Molecular Biology Lab | 1 | Staff, |
| Bio220 | Human Anatomy and Physiology II | 3 | Higgins, Ed |
| Bio220L(0)* | Human Anatomy and Physiology II Lab | 1 | Higgins, Ed |
| Bio220L(1)* | Human Anatomy and Physiology II Lab | 1 | Higgins, Ed |
| Bio235 | Ecology | 3 | Potapov, Eugene R. |
| Bio235L* | Ecology Lab | 1 | Potapov, Eugene R. |
| Bio495 | Senior Project (WC) | 3 | Bryntesson, A. Fredrik |
| Bus141 | Accounting I | 3 | Tepper, James |
| Bus256 | Principles of Sales | 3 | Swiski, Mark D. |
| Bus264 | Sports Marketing | 3 | Shute, Dick |
| Bus301(0) | Business Ethics (Moral)(PP) | 3 | King, Ethan |
| Bus301(1) | Business Ethics (Moral)(PP) | 3 | King, Ethan |
| Bus327 | International Financial Management | 3 | Rohtla, Eric A. |
| Bus495 | Senior Capstone Project (WC) | 2 | Rogers, Elizabeth |
| Chem110(0) | General Chemistry I | 3 | Bedford, Allen |
| Chem110(1) | General Chemistry I | 3 | Higgins, Ed |
| Chem110L(0)* | General Chemistry I -Lab | 1 | Evans, Stella R. |
| Chem110L(1)* | General Chemistry I -Lab | 1 | Evans, Stella R. |
| Chem110L(2)* | General Chemistry I -Lab | 1 | McMackin, Grace Rose |
| Chem110L(3)* | General Chemistry I-Lab | 1 | McMackin, Grace Rose |
| Comm105(0) | Public Speaking (PP) | 3 | Bernhardt, Suzanne |
| Comm105(1) | Public Speaking (PP) | 3 | Bernhardt, Suzanne |
| Comm130 | Foundations of Graphic Design | 3 | Mill, Carl |
| CSci206 | Introduction to Data Science | 3 | Simonetti, Neil |
| Dan120 | Dance Technique | 3 | Bostock, Jessica |
| Dan495 | Senior Essay (WC) | 2 | Bostock, Jessica |
| Econ132 | Microeconomics (QR) | 3 | King, Ethan |
| Ed218 | Literacy Instruction for Young Learners I | 3 | Phillips, Nina Gunther |
| Ed272 | Child Development:Birth to Age Nine | 3 | Rogers, Kiri K. |
| Ed323 | Math and the Young Child | 3 | Staff, |
| Eng110 | Worldviews and Literature (Worldview) | 3 | King, Kristin |
| Eng220 | English Literature Survey I | 3 | Cooper, Robin |
| Eng245 | Children's Literature | 3 | Glenn, Thane |
| FA/Hist271 | Introduction to Historic Preservation | 3 | Hartley, Stephen E. |
| FA102 | Art History: Renaissance to Now (IL) | 3 | Kline, Jonathan D. |
| FA122* | Forging | 3 | Staff, |
| FA130* | Ceramics | 3 | Orthwein, Christina |


| FA141* | Building Arts Foundation | 3 | Leap, Kenneth |
| :---: | :---: | :---: | :---: |
| FA213 | Topics in Twentieth-Century Architecture: Bryn Athyn's | 3 | Kline, Jonathan D. |
| FA228* | Intermediate Stained Glass | 3 | Leap, Kenneth |
| FA278 | Stained Glass Design | 3 | Leap, Kenneth |
| FA312 | Introduction to Architectural Metal Design | 3 | Staff, |
| FA495 | Senior Essay (WC) | 2 | Kline, Jonathan D. |
| FA499 | Senior Project | 1 | Leap, Kenneth |
| FE2 | Field Experience II: Exploration | 3 | Phillips, Nina Gunther |
| Germ102 | Introductory German II | 3 | Lawing, Sean |
| Hist117 | The Contemporary World | 3 | Rose, D. Greg |
| HSoc402 | Capstone Seminar II (WC) | 3 | Lawing, Sean |
| ID496 | Senior Seminar II | 1 | Nash, Laura |
| Lat110 | Beginning Latin I | 3 | Frazier, Scott Innes |
| Math115 | College Algebra (QR) | 3 | Genzlinger, Maret |
| Math130 | Introduction to Statistics (QR) | 3 | Bongers, Caira |
| Math130 | Introduction to Statistics (QR) | 3 | Bongers, Caira |
| Math130L | Introduction to Statistics Lab | 1 | Bongers, Caira |
| Math130L | Introduction to Statistics Lab | 1 | Bongers, Caira |
| Math130L | Introduction to Statistics Lab | 1 | Bongers, Caira |
| Math151 | Calculus II | 4 | Simonetti, Neil |
| Math495 | Senior Essay (WC) | 2 | Simonetti, Neil |
| Math499 | Senior Research | 2 | Simonetti, Neil |
| Mus100 | College Chorale | 1 | Bier, Graham |
| Mus113 | Music Theory I | 3 | Staff, |
| PE129 | Badminton | 1 | Bryntesson, Hilary J. |
| PE133 | Yoga | 1 | Staff, |
| Phill01 | Critical Thinking | 3 | Synnestvedt, Dan |
| Phil102(0) | Introduction to Philosophy (Worldview) | 3 | Synnestvedt, Dan |
| Phill02(1) | Introduction to Philosophy (Worldview) | 3 | Latta, Marcy |
| Phill11 | Introduction to Moral Philosophy (Moral) | 3 | Latta, Marcy |
| Phil211 | Modern Philosophy | 3 | Synnestvedt, Dan |
| Phil495 | Senior Essay | 3 | Synnestvedt, Dan |
| Phys210 | Principles of Physics I (QR) | 3 | Staff, |
| Phys210L(0)* | Principles of Physics I - Lab | 1 | Staff, |
| Phys210L(1)* | Principles of Physics I - Lab | 1 | Staff, |
| PSci101(0) | Introduction to Politics and Governance (Civil) | 3 | Rose, D. Greg |
| PSci101(1) | Introduction to Politics and Governance (Civil) | 3 | Rose, D. Greg |
| PSci101(2) | Introduction to Politics and Governance (Civil) | 3 | Hodgell, Reid |
| PSci212 | International Relations | 3 | Hodgell, Reid |
| Psyc101 | Introductory Psychology | 3 | Rogers, Kiri K. |
| Psyc230 | Psychology and Spirituality | 3 | Frey, Kurt |
| Psyc301 | Counseling and Clinical Psychology | 3 | Rogers, Kiri K. |
| Psyc491 | Senior Research Seminar (WC) | 3 | Frey, Kurt |
| Rel101 | Introduction to New Church Doctrines (SpDoc) | 3 | Schnarr, Grant |
| Rel115 | Introduction to New Church Doctrine on Life After Death | 3 | Genzlinger, Matthew |
| Rel123 | Introduction to the Old and New Testaments (SpScript) | 3 | Frazier, Scott Innes |
| Rel125 | The Holy Scripture (SpDoc) | 3 | Cole, Stephen |


| Rel205 | God, Man, and Creation (IL)(SpDoc) | 3 | Glenn, Coleman |
| :--- | :--- | :--- | :--- |
| Rel215 | The Lord (SpDoc) | 3 | Glenn, Thane |
| Rel273 | Religion and Marriage (Doc)(W) | 3 | Silverman, Ray |
| Rel296 | Eastern Religious Thought/Hinduism (SpComp) | 3 | Silverman, Ray |
| Rel305 | Universal Doctrines of the New Church I (SpDoc)(W) | 3 | Frazier, Scott Innes |
| Rel335 | The Human Mind (SpAppl) | 3 | Cole, Stephen |
| Rel490 | Religion Senior Project I (WC) | 3 | Frazier, Scott Innes |
| Span102 | Introductory Spanish II | 3 | Staff, |
| SpEd212 | Supporting Students with Disabilities | 3 | Goldynia, Kristine |
| SpEd312 | Classroom Assessments | 3 | Synnestvedt, Lisa |
| Thea130 | Set Design and Production (EE) | 3 | Haus-Roth, Naomi |
| Thea150+ | Dramatic Performance (EEc) | 3 | Bostock, Jessica |
| Writ101(0) | Expository Writing (W) | 3 | Staff, |
| Writ101(1) | Expository Writing (W) | 3 | Nash, Abbey |
| Writ202 | Writing About Literature (W) (IL) | 3 | King, Kristin |

+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 2019-20 Undergraduate Courses 

## Anthropology

Anthropology 213. World Pre-History.
Using world archaeological sites as stepping stones, creates 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.
Prerequisite: Anthropology 110 or instructor permission.
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.
Prerequisite: Anthropology 110 or any history class, or instructor permission.
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, cell division and the cell cycle, DNA structure and synthesis, chromosome structure and organization, mutations and their repair, genetic engineering, transcription and its regulation, the genetic code, and translation of genetic information to proteins. 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 with a grade of "C" or better.
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 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 and 123 .
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 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.
3 Credits.

## Business

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 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 264. Sports Marketing.

This course will study the marketing efforts within the sports industry, including the understanding of the sports customer, and promotional and marketing strategies. Topics include fan behavior, ticketing, advertising, sponsorship, licensing, endorsements, public relations, hospitality, social media, and event management.
Prerequisite: any economics course. Bus254 and Bus267 recommended.
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 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 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.

## 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 have 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.

## Communication

Communication 105. Public Speaking. (PP)
Exposure to a variety of speaking situations designed to address inhibitions and develop self-confidence.
Class work features impromptu and prepared speeches, as well as oral interpretation of literature and choral speaking. Work on voice and speech improvement as well as command of body language.
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 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.
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 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 218. Literacy Instruction for Young Learners I.
This course exposes students to theory and practice in literacy instruction, pre-kindergarten through grade 4. Emphasis on emergent literacy, techniques and skills of teaching reading and language arts, evaluation and assessment. Includes 1 credit hour of ELL.
Prerequisite: Education 128 or Education 217.
3 Credits.

Education 272. Child Development: Birth - Nine Year Olds.
Teachings about human development from the theology of Swedenborg are compared with major theories of child development. Emphasis on the sensory needs of early childhood and how to create a nurturing environment for physical, mental, and socio-emotional health.
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.

## 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 and higher require 200-level English.

English 110. Worldviews \& Literature (Worldview).
Introduction to six worldviews in the context of literary texts. Emphasis on how characters with differing worldviews interact with others and with their geographic and historical contexts. Emphasis on close readings and critical analysis.
3 Credits.
English 220. English Literature Survey I.
Chronological survey of the development of English literature in England from the early medieval period through the mid-17 th century. Lecture and discussion on such authors as Chaucer, Shakespeare, Marlowe, Donne, Jonson, and more.
Prerequisite: Writing 101.
3 Credits.

## 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.

## 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 in the office of Internship. This course satisfies the EE requirement.
Course may be repeated for academic credit by arrangement.
Credit variable.

## Field Experience

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.

## Fine Arts

Fine Arts 102. Art History: Renaissance to Now (IL).
Introductory survey of art and architecture from the Renaissance era to the Present, including Renaissance and Baroque Art, Modern movements such as Impressionism and Post-Impressionism, Cubism, Dada, Abstract Expressionism and Pop-Art, and current examples in an ever-expanding canon.
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 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 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 213. Topics in Twentieth-Century Architecture: Bryn Athyn’s National Historic
Landmarks.
Study of the conception of Bryn Athyn Cathedral, Glencairn, Cairnwood, and Cairncrest within the context of architectural developments at the turn of the twentieth century. The course uses resources in the Cathedral, John Pitcairn Archives, Glencairn, and the Raymond and Mildred Pitcairn archives, from which the students do original research on a topic of their choice.
3 Credits.
Fine Arts 228. Intermediate Stained Glass Painting
Focusing on architectural stained glass design and construction, this course refines the skills learned in FA 128. Includes opportunities for self-expression and creative thinking, repair and restoration of historic glass. Inspired by the magnificent examples in Glencairn and Bryn Athyn Cathedral.
This course requires a lab fee.
Prerequisite: FA 128.
3 Credits.

Fine Arts 278. Stained Glass Design
This course introduces students to the principles of stained glass design, using simple panels as examples. Topics covered include sizing, color selection, structural stability and pricing. Students design a series of stained glass panels based on hypothetical locations and client needs. Students present their designs for evaluation to a panel of reviewers.
Prerequisite: Fine Arts 128
3 Credits.

Fine Arts 312. FA 312 Introduction to Metal Design.
This course introduces students to the processes employed in the design and presentation of projects in architectural / ferrous metals - iron and steel. Responding to various scenarios, including both replication and the opportunity for original work, students plan and design projects in metal. Student work includes conceptual drawings and initial cost estimates. Students produce a detailed proposal for a project including finished drawings, material and labor estimates, and timetables for completion. Emphasis is placed on design and presentation, rather than execution of actual projects in metal.
Prerequisite: Fine Arts 122.
3 Credits.
Fine Arts 495. Senior Essay. (WC)
Capstone experience for the Interdisciplinary Major. Writing of the senior essay based on the research and outline produced in Fine Arts 493.
Prerequisites: Fine Arts 493 and Interdisciplinary Studies 494.
2 Credits.

Fine Arts 499. Senior Project.
Independent study toward a studio arts project to be a companion to the Fine Arts Interdisciplinary Senior Essay. Limited to and required of fine arts interdisciplinary majors in a studio art track.
Prerequisite: Fine Arts 399.
Credit Variable.

## German

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

## 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

In addition to the listed courses, all areas offer independent studies numbered 299 or 399 with variable credit. The purpose of an independent study is to allow well-qualified students to study beyond the regularly offered courses. Students who undertake independent studies must be able to work independently between meetings with the instructor and have completed a minimum of 33 credits with a GPA of at least 2.70. Planning ahead is necessary: independent study proposals, syllabi, and required registration paperwork must be completed well before the term in which the study is to occur. Full details can be found in the undergraduate student handbook.

## Interdisciplinary Studies

Interdisciplinary Studies 496. Senior Seminar II.
For seniors in the Interdisciplinary Major. Public presentation of senior essay. Career planning and portfolio development. Pass/Fail.
Prerequisite: A passing grade on an interdisciplinary senior essay.
1 Credit.

## 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 110. Beginning Latin I.
Introduction to the elements of Latin grammar and syntax to be used in translating classical authors and Swedenborg.
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.
Mathematics 499. Senior Project.
Independent study toward a mathematics project to be a companion to the Mathematics Senior Essay. Limited to and required of mathematics and mathematics interdisciplinary majors.
Credit Variable.

## 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.

## 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 classical 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.
Prerequisite: Philosophy 102.
3 Credits.
Philosophy 211. Modern Philosophy.
Historical consideration of modern and Enlightenment philosophy, including Descartes, Locke, Leibniz, Rousseau, and Voltaire. Strongly recommended: Philosophy 101.
Prerequisite: Philosophy 102.
3 Credits.

Philosophy 495. Senior Essay. (WC)
Capstone experience for the Interdisciplinary Major. Writing of the senior essay based on the research and outline produced in Philosophy 493.
Prerequisites: Philosophy 493 and Interdisciplinary Studies 494.
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 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.
Political Science 212. International Relations.
Examination of historical and theoretical foundations for thinking about international relations. Topics include: peace and conflict, international law, intervention, and terrorism. Recommended: Political Science 101 or History 117.
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 230. Psychology and Spirituality.
Examinations of psychological research and theories about people's attitudes, motivations, behaviors, thoughts and feelings in a variety of spiritual settings. Investigations of how therapists address spiritual matters in counseling sessions. Consideration of the psychological experience of the Swedenborgian belief in the afterlife, regeneration, charity, conscience, and the relationship between God and humans.
Prerequisite: Psychology 101 or department chair permission.
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 491. Senior Research Seminar. (WC)
Capstone for seniors in the psychology major. Independent work on Senior Essay guided by an advisor. 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 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 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 296. Eastern Religious Thought/Hinduism. (Comparative)
Introduction to Eastern Religious Thought with a focus on the Bhagavad Gita, considered one of the most revered of the Hindu scriptures, and one of the most important religious classics in the world. Course includes an in-depth study of the literal and symbolic levels of the Gita, a comparison with Western thought in general and with New Church thought in particular.
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. Text: True Cbristian Religion.
3 Credits.

Religion 335. The Human Mind. (Rel335 W is W, Applied)
Study of what the doctrines of the New Church teach about the structure and function of the human mind and how it relates to the brain. The discrete degrees of the mind. The faculties of will and understanding, their relationship and interplay.
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.
Prerequisite: Spanish 101 or equivalent as determined by placement test. Spanish is the language of instruction.
3 Credits.

## Special Education

Special Education 212. Supporting Students with Disabilities.
This course examines the characteristics and needs of students who are identified under the 13 federally defined categories of disabilities. Emphasis on investigating the complexity of these needs and the specially designed instruction that meets them. Research-based frameworks such as UDL and other strategies that support inclusionary practices within the life of the classroom will be addressed.
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 assessments 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.

## 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. (EEC)
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, critical, 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 five formal essays total, including substantial revision.
Individual conferences with instructor to discuss student's writing. Required of first year students. Non-native speakers of English may take Writing 101 sophomore year.
3 Credits.

Writing 202. Writing About Literature. (W, IL)
Analytic study of 2-3 literary genres, with emphases on writing and research. Assumes basic skills in writing and information literacy covered in Writing 101. Three papers, including substantial revision. One longer paper and its research process require locating, evaluating, and incorporating multiple secondary sources. Individual conferences with instructor to discuss student's writing. Required of sophomores.
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.
Writing 311. Advanced Creative Writing Workshop. (W)
Workshop for in-depth study of the craft of writing. Students will concentrate on one genre (poetry, fiction, or drama) and produce a polished portfolio of their work. Workshop sessions provide opportunity for rigorous and supportive feedback on works in progress with the goal of helping class members produce their best writing.
Prerequisite: Writing 211 or 213.
3 Credits.

## Spring Term 2019-20 Undergraduate Course List

As of $4 / 21 / 2019$. (Independent Study and Internship courses not listed).

| COURSE | TITLE | CREDITS | INSTRUCTOR |
| :---: | :---: | :---: | :---: |
| Anth110 | An Introduction to Cultural Anthropology | 3 | Yardumian, Aram |
| Bio232 | Cell Structure and Function | 3 | Staff, |
| Bio245 | Zoology | 3 | Potapov, Eugene R. |
| Bio245L* | Zoology Lab | 1 | Potapov, Eugene R. |
| Bio250 | Microbiology | 3 | Higgins, Ed |
| Bio250L(0)* | Microbiology Lab | 1 | Higgins, Ed |
| Bio250L(1)* | Microbiology Lab | 1 | Evans, Stella R. |
| Bio310 | Molecular Biology: DNA and Gene Expression | 3 | Bryntesson, A. Fredrik |
| Bio380 | Research Seminar (IL)(PP) | 1 | Higgins, Ed |
| Bio492(0) | Biology Seminar III | 1 | Potapov, Eugene R. |
| Bio492(1) | Biology Seminar III | 1 | Potapov, Eugene R. |
| Bus142 | Accounting II | 3 | Waltrich, Christopher |
| Bus257 | Principles of Management | 3 | Staff |
| Bus290 | Internship Preparation Seminar | 1 | Staff |
| Bus302 | Corporate Social Responsibility | 3 | Staff |
| Bus351 | Introduction to Business Law | 3 | Rogers, Elizabeth |
| Bus390 | Research Seminar(IL) | 2 | King, Ethan |
| Bus496 | Senior Seminar II | 1 | Nash, Laura |
| Chem111(0) | General Chemistry II | 3 | Higgins, Ed |
| Chem111(1) | General Chemistry II | 3 | Higgins, Ed |
| Chem111L(0)* | General Chemistry II Lab (QR) | 1 | Evans, Stella R. |
| Chem111L(1)* | General Chemistry II Lab (QR) | 1 | McMackin, Grace Rose |
| Chem111L(2)* | General Chemistry II Lab (QR) | 1 | McMackin, Grace Rose |
| Comm105 | Public Speaking (PP) | 3 | Bernhardt, Suzanne |
| Comm230 | Intermediate Graphic Design | 3 | Mill, Carl |
| CS/Math230 | Statistics and Data Mining (QR) | 3 | Bongers, Caira |
| CSci180 | Structured Programming | 3 | Simonetti, Neil |
| Dan160/260/360+ | Dance Ensemble (EEc) | 1.5 | Bostock, Jessica |
| Dan331 | Advanced Modern Contemporary Dance (EEc) | 3 | Bostock, Jessica |
| Econ132 | Microeconomics (QR) | 3 | King, Ethan |
| Ed128 | Introduction to the Theory and Practice of Education | 3 | Staff |
| Ed219 | Literacy for Young Learners II | 3 | Staff |
| Ed274 | Adolescent Growth and Development: Ages 8-18 | 3 | Phillips, Nina Gunther |
| Ed402 | Student Teaching (EE) | 12 | Phillips, Nina Gunther |
| Eng105 | Madness in Literature | 3 | Cooper, Robin |
| Eng365 | Literature as Social Lens | 3 | King, Kristin |
| EnSci105 | Introduction to Sustainability | 3 | Staff |
| EnSci105L* | Introduction to Sustainability | 1 | Staff |
| FA120* | Metal Work I | 3 | Kline, Jonathan D. |
| FA125* | Photography | 3 | Orthwein, Christina |
| FA151* | Architectural Modeling | 3 | Hartley, Stephen E. |
| FA220* | Metal Work II | 3 | Kline, Jonathan D. |
| FA232 | Computer Assisted Design | 3 | Staff |


| FA241* | Building Arts Foundation II | 3 | Hartley, Stephen E. |
| :---: | :---: | :---: | :---: |
| FA251* | Integrating Art into a Child's Early Years | 1.5 | Gyllenhaal, Martha |
| FA282 | Art History: Art of the World's Religions | 3 | Kline, Jonathan D. |
| FA322 | Traditional Joinery Design and Production | 3 | Staff |
| FE3 | Field Experience III | 3 | Phillips, Nina Gunther |
| Hist160 | Art, Culture and History: Studies Abroad | 3 | Closterman, Wendy |
| Hist217 | Nazi Germany | 3 | Lawing, Sean |
| Hist311 | Vengeance and Justice in Medieval Europe | 3 | Lawing, Sean |
| ID390 | Research Seminar (IL) | 2 | Latta, Marcy |
| ID496 | Senior Seminar II | 1 | Nash, Laura |
| Lat111 | Beginning Latin II | 3 | Frazier, Scott Innes |
| Lead130 | Introduction to Leadership (EE) | 3 | Nash, Laura |
| 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 |
| Math115 | College Algebra (QR) | 3 | Genzlinger, Maret |
| Math124 | Transcendental Functions (QR) | 1.5 | Simonetti, Neil |
| Math130 | Introduction to Statistics (QR) | 3 | Bongers, Caira |
| Math130L(0) | Introduction to Statistics Lab | 1 | Bongers, Caira |
| Math130L(1) | Introduction to Statistics Lab | 1 | Bongers, Caira |
| Math250 | Calculus III | 3 | Blair, Max |
| Math496 | Senior Seminar II | 1 | Nash, Laura |
| Mus100 | College Chorale | 1 | Bier, Graham |
| Nutr110 | Principles of Nutrition | 3 | Nelson, Suzanne |
| PE103 | Life and Health | 1 | Bryntesson, Hilary J. |
| Phill01 | Critical Thinking | 3 | Synnestvedt, Dan |
| Phil102 | Introduction to Philosophy (Worldview) | 3 | Synnestvedt, Dan |
| Phil340(0) | Bioethics (Moral) | 3 | Latta, Marcy |
| Phil340(1) | Bioethics (Moral) | 3 | Latta, Marcy |
| Phys211 | Principles of Physics II (QR) | 3 | Staff |
| Phys211L* | Principles of Physics II -Lab | 1 | Staff |
| PSci101 | Introduction to Politics and Governance (Civil) | 3 | Rose, D. Greg |
| PSci232 | Issues in American Foreign Policy (W) | 3 | Rose, D. Greg |
| Psyc201 | Abnormal Psychology | 3 | Rogers, Kiri K. |
| Psyc204 | Human Development: Lifespan | 3 | Frey, Kurt |
| Psyc205 | Social Psychology (PP) | 3 | Frey, Kurt |
| Psyc220 | Cognitive Psychology | 3 | Frey, Kurt |
| Psyc305 | Physiological Psychology (IL) | 3 | Cavallo, Fernando |
| Psyc492 | Senior Seminar | 1 | Nash, Laura |
| Rel110 | Introduction to Systematic Theology (SpDoc) | 3 | Glenn, Coleman |
| Rel115(0) | Introduction to New Church Doctrine on Life After Death | 3 | Schnarr, Grant |
| Rel115(1) | Introduction to New Church Doctrine on Life After Death | 3 | Schnarr, Grant |
| Rel115(2) | Introduction to New Church Doctrine on Life After Death | 3 | Genzlinger, Matthew |
| Rel205 | God, Man, and Creation (IL)(SpDoc) | 3 | Glenn, Coleman |
| Rel210 | Divine Providence and Human Prudence (IL) (SpDoc) | 3 | Genzlinger, Matthew |
| Rel222 | The Gospels (SpScript) | 3 | Frazier, Scott Innes |
| Rel283 | Pre-Christian Church History (SpComp) | 3 | Cole, Stephen |


| Rel306 | Universal Doctrines of the New Church II (W)(SpDoc) | 3 | Glenn, Thane |
| :--- | :--- | :--- | :--- |
| Rel320 | Judgment, Providence, and Human Society (SpAppl) | 3 | Frazier, Scott Innes |
| Soc110 | Introduction to Sociology | 3 | Anderson III, Samuel |
| SpEd213 | Family and Community Partnership | 3 | Wong, Sarah |
| SpEd313 | Research-based Interventions | 3 | Ballard, Kelly M. |
| Writ101(0) | Expository Writing (W) | 3 | Staff |
| Writ101(1) | Expository Writing (W) | 3 | Nash, Abbey |
| Writ202(0) | Writing About Literature (W) (IL) | 3 | King, Kristin |
| Writ202(1) | Writing About Literature (W) (IL) | 3 | King, Kristin |
| Writ213 | Advanced Rhetoric and Composition (W) | 3 | Glenn, Thane |

+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.

## Spring Term 2019-20 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.

## Biology

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 and 123 and Chemistry 110.
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 and 123 .
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 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 and 123 .
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 310. Molecular Biology: DNA and Gene Expression.
In depth study on the structure and function of the genetic material, DNA, how it is replicated and how genes are regulated and expressed. Topics include the structure of DNA and chromosomes, DNA replication, DNA damage and repair, transcription, RNA splicing, translation, transcriptional regulation in prokaryotes and eukaryotes, and the structure and function of regulatory RNAs.
Prerequisites: Biology 230 and Chemistry 210.
3 Credits.
Biology 380. Research Seminar. (IL, PP)
Exploration of the breadth of biology career paths and research options. Guest speakers from various biological and medical fields present their work and educational background. 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.
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.
1 Credit.

## 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 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 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.
1.5 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 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 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.
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 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.
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.
1 Credit.

## Communication

Communication 105. Public Speaking. (PP)
Exposure to a variety of speaking situations designed to address inhibitions and develop self-confidence.
Class work features impromptu and prepared speeches, as well as oral interpretation of literature and choral speaking. Work on voice and speech improvement as well as command of body language.
3 Credits.

Communication 230. Intermediate Graphic Design.
Continuation of graphic design instruction and practice begun in Communications 130, with more emphasis given to software proficiencies. Students hone visual communication skills by using design, spatial relationships, typography and imagery to create graphic projects in Adobe Creative Suite programs such as Photoshop, InDesign, and Illustrator.
Prerequisites: Communications 130 or permissions from instructor.
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/Mathematics 230. Statistics and Data Mining. (QR)
This course builds on what was learned in Mathematics 130 with an eye on big data sets. Topics include linear and multi regression analysis, classification methods including logistic regression, resampling methods such as the bootstrap, applications of decision trees, and unsupervised learning such as cluster analysis. A final project will encompass multiple analysis methods. Throughout the course, the programming language R will be used. Prerequisites: B- or better in Mathematics 130 or Mathematics 330 .
3 Credits.

## Dance

Dance 160/260/360. Dance Ensemble. (EEC)
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 331. Advanced Modern Contemporary Dance. (EEC)
Students continue to develop as dancers through learning more complex technique, progressions, and combinations, as well as engaging in improvisational exercises. Emphasis is on increasing accuracy of articulation, range of movement, and moving the body as a cohesive unit. Includes critique of modern and contemporary dance choreography and culminates in a public performance. Course may be repeated once for credit.
Prerequisite: Dance 131/231 or instructor's permission.
3 Credits.
Dance 499. Senior Project.
Independent study toward a dance choreography project to be a companion to the Fine Arts Interdisciplinary Senior Essay. Limited to and required of fine arts interdisciplinary majors in a dance track.
Prerequisite: Dance 332.
Credit Variable.

## 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 219. Literacy for Young Learners II.
This course prepares pre-service teachers for teaching language arts in early childhood (pre-K to 4th grade). How to assess the work of young writers and design instruction to advance their composition skills. Best practices for addressing phonological awareness, decoding, fluency, vocabulary, comprehension, spelling, and handwriting.
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.

## 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 and higher require 200-level English.

## English 105. Madness in Literature (Introductory Literature Seminar).

Study of how and why madness appears so often in fiction. Considerations include madness' symbolic values, use as a manipulative narrative tool, emotional impacts, relations to illness and genius, and changing appearances in literature from classical to contemporary works. Authors include Euripides, Gogol, Poe, Kafka, Plath, Christie, Palahniuk, and more.
3 Credits.

## English 365. Topics in Literature.

In depth examination of a selected literary theme, movement, genre, or author. Specific title announced in the course bulletin when offered. Topics will make use of a professor's area of expertise and research. May be repeated for credit when different topics are offered.
Prerequisite: Any 200-level English course.
3 credits.

## Environmental Science

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.

## 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 in the office of Internship. This course satisfies the EE requirement.
Course may be repeated for academic credit by arrangement.
Credit variable.

## Fine Arts

Fine Arts 120. Metal Work I.
Introduction to basic metalworking techniques in fine metals, including cutting and piercing, soldering, chain links, and bezel settings.
This course requires a lab fee.
3 Credits.
Fine Arts 125. Photography.
Introduction to the use of various cameras, darkroom techniques, alternative processing, and basic design. This course requires a lab fee.
3 Credits.

Fine Arts 151. Architectural Modeling.
This course provides opportunities for students to develop their visualization skills in architectural design by requiring them to make three-dimensional models of two-dimensional drawings. Students will be presented with a variety of architectural modeling scenarios and will be required to develop three-dimensional models using various materials such as paper, clay, and wood. Students work independently and in groups to complete design scenarios presented to them. Emphasis is placed on communication, accuracy, and craftsmanship in architectural modeling. The collection and models in the Glencairn Museum support these endeavors.
This course requires a lab fee.
3 Credits.
Fine Arts 220. Metal Work II.
Further study in techniques used to shape, join, and color fine metals. Topics may include casting and fabrication techniques, enamel, hinges, the setting of cabochon and/or faceted stones.
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 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 251. Integrating Art into a Child’s Early Years.
By reading about the developmental states of children, discussing the issues involved with elementary art education, looking at examples of children's art, and actually doing projects, future teachers and caregivers will become confident in their ability to use art as one of their teaching methods.
This course requires a lab fee.
1.5 Credits.

Fine Arts 282. Art History: Art of the World's Religions.
This course focuses on imagery and narrative in the art of the five world religions: Hinduism, Buddhism, Judaism, Christianity, and Islam. Attention is given to the representation of sacred narratives, theories and practices of representing various persons and/or aspects of the Divine, the prohibition of and justification for sacred imagery, and differences between aniconic and iconic modes of representation. Students work with primary source material, including religious texts (selections from translations of the Vishnu Purana, Buddhacarita, Tanakh, New Testament, Qur'an, and Writings of Swedenborg) and works of art from the Glencairn Museum.
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.

## Field Experience

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.

## History

Fine Arts/History 160. Art, Culture and History.
Examination of the art, culture, and history of a designated period and region. Special attention will be given to art as a form of religious and cultural expression. Serves as an intellectual foundation for Fine Arts/History 161: Study Abroad. Offered in conjunction with Glencairn Museum.
3 Credits.
History 217. Nazi Germany.
Examination of the rise and fall of Nazi Germany under Adolf Hitler and a consideration of contributing historical, social, economic, and political factors. Particular focus on the impact on German society, individual choice, and philosophies underpinning Nazism: fascism, cult of personality, eugenics, anti-Semitism, social Darwinism.
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

In addition to the listed courses, all areas offer independent studies numbered 299 or 399 with variable credit. The purpose of an independent study is to allow well-qualified students to study beyond the regularly offered courses. Students who undertake independent studies must be able to work independently between meetings with the instructor and have completed a minimum of 33 credits with a GPA of at least 2.70. Planning ahead is necessary: independent study proposals, syllabi, and required registration paperwork must be completed well before the term in which the study is to occur. Full details can be found in the undergraduate student handbook.

## 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.
Interdisciplinary Studies 496. Senior Seminar II.
For seniors in the Interdisciplinary Major. Public presentation of senior essay. Career planning and portfolio development. Pass/Fail.
Prerequisite: A passing grade on an interdisciplinary senior essay.
1 Credit.

## 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 111. Beginning Latin II.
Continuation of Latin 110.
Prerequisite: Latin 110.
3 Credits.

## Leadership

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

Mathematics 496. Senior Seminar II.
For seniors in the Mathematics Major. Public presentation of senior essay. Career planning and portfolio development. Pass/Fail.
Prerequisite: A passing grade on the senior essay.
1 Credit.

## 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.

## 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 classical 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 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 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.

## 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 151 and Physics 210.
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 232. Issues in American Foreign Policy. (W)
Consideration of American foreign policy through an examination of dominant themes and a series of case studies highlighting both levels of analysis and decision-making theories.
Prerequisites: Political Science 101, History 117, or instructor permission.
3 Credits.

## Psychology

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 204. Human Development: Lifespan.

Study of human development, focusing on the most significant changes that occur across the lifespan. Topics include theories of physical-motor, cognitive, language, creative, social, emotional, moral, and spiritual development.
Prerequisite: Psychology 101 or department chair permission.
3 Credits.

Psychology 205. Social Psychology. (PP)
Study of behavior and cognition in social contexts. Topics include aggression, altruism, influence, love, prejudice, and conformity. Swedenborgian concepts of love, charity, and obedience analyzed. Public Presentation skills emphasized.
Prerequisite: Psychology 101 or department chair permission.
3 Credits.
Psychology 220. Cognitive Psychology.
Survey of contemporary theories and research concerned with the structure and processes of the mind. The course will view cognitive psychology as the coordinated operation of mental processes within a multicomponent memory system. Topics include attention, memory, the role of emotion, problem solving, and concept formation.
Prerequisite: Psychology 101 or department chair permission.
3 Credits.

Psychology 305. Physiological Psychology. (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 selfregulation. 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 492. Senior Seminar.
Capstone for seniors in the psychology major. Public presentation. Critical analysis of ethics in psychology. Career planning and portfolio development. Pass/Fail.
1 Credit.

## Religion

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, and marriage. Presupposes a moderate familiarity with New Church teachings.
3 Credits.
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 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 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 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 283. Pre-Christian Religious History. (Comparative)
Survey of the history of pre-Christian religions emphasizing the rise, development, and fall of religions from ancient times to Biblical Israel. Topics include the character of revelation and the response to it in each successive religion, the origin of mankind, the origin of evil, and the rise of monogamy and polygamy, of monotheism and polytheism, and of idolatry in the ancient world.
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: The True Christian Religion.
3 Credits.

Religion 320. Judgment, Providence, and Human Society. (PP, Applied)
Study of the spiritual process of judgment, both personal and societal, and the roles human choice and Divine Providence play in judgment. Attention given to the role of judgment in human history, the judgments that have occurred, and the changes judgment brings. The books of the Heavenly Doctrines Last Judgment and Continuation of the Last Judgment will be read in full.
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.

## Special Education

Special Education 213. Family and Community Partnerships.
This course examines the importance of collaboration when serving students with various needs. Addresses the skills and knowledges 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. Research-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.

## Writing

## Writing 101. Expository Writing. (W)

Development of informative, critical, 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 five formal essays total, including substantial revision.
Individual conferences with instructor to discuss student's writing. Required of first year students. Non-native speakers of English may take Writing 101 sophomore year.
3 Credits.

Writing 202. Writing About Literature. (W, IL)
Analytic study of 2-3 literary genres, with emphases on writing and research. Assumes basic skills in writing and information literacy covered in Writing 101. Three papers, including substantial revision. One longer paper and its research process require locating, evaluating, and incorporating multiple secondary sources. Individual conferences with instructor to discuss student's writing. Required of sophomores.
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 both to concepts of classical rhetoric and to issues arising in the context of contemporary cultural environments and communications practices.
Prerequisite: Writing 101.
3 Credits.

