



# University Bulletin

## Undergraduate Degree Programs

### Primary Navigation

## Penn State Lehigh Valley

Penn State Lehigh Valley offers a variety of degree program choices that can be finished at the campus and the first two years of more than 160 Penn State majors that can be completed at other Penn State campuses.

The campus is a part of the University-wide computer network and the University Libraries system, one of the richest repositories of literature and information in the country. At Lehigh Valley campus, students can choose from among nearly thirty special-interest clubs and organizations to round out their college life. And in keeping with Penn State's sports tradition, the campus offers varsity, intramural, and club sports.

Penn State Lehigh Valley has the distinction of being the oldest continuously running campus in the Penn State system besides University Park and has two site locations--the Penn State Lehigh Valley campus in Fogelsville and the Penn State Lehigh Valley Corporate Learning Center in Bethlehem.

### RECOMMENDED ACADEMIC PLANS

Recommended Academic Plans provide, in table form, the courses students might schedule semester by semester as they pursue a specific undergraduate degree. Each college or campus maintains Recommended Academic Plans for its own majors/degree programs. Links to these plans are on the Division of Undergraduate Studies website at: <http://www.dus.psu.edu/semplans.htm>. Questions concerning the Recommended Academic Plans should be directed to the college or campus involved or the Division of Undergraduate Studies.

### Baccalaureate Degrees

## Arts Administration

*Penn State Erie, The Behrend College (ARTSA)*

*Penn State Lehigh Valley (ARACC)*

*Not all options are available at every campus. Contact the campus you are interested in attending to determine which options are offered.*

The Penn State Erie Arts Administration program is intended for students with an interest in the arts and a desire to pursue careers in the administration or management of arts organizations such as museums, theatre companies, orchestras and choruses. The program combines a broad exposure to the arts with intensive training in management, marketing, writing, and development.

The interdisciplinary Arts Administration program answers the growing need for leaders and administrators of arts organizations that must compete, survive, and thrive in a corporate world. Recognizing that these organizations have missions that are different from business corporations, the Arts Administration program aims to produce capable arts administrators, managers, and entrepreneurs with both aesthetic sensibilities and business acumen. Successful arts administration is crucial to the continued vitality of modern cultural institutions, creative enterprises, and arts organizations. If the public is to benefit, skilled arts administrators must facilitate the work of artists to realize their artistic vision and share it with the public, by executing the necessary financial, legal, and organizational decisions. In short, talented arts administrators are partners in a collaborative artistic process. The major includes the following options:

Digital Media Option - emphasizes design and social media engagement, so that student may create and manage online content for cultural organizations. Students develop proficiency in web writing, image editing, layout, and advertising.

Marketing Option - provides a business core for careers that emphasize marketing with arts organizations. The coursework includes statistics, marketing research, and other marketing courses relevant to arts and cultural organizations.

For the B.A. degree in Arts Administration, a minimum of 121 credits is required. Students must earn C or better in ARTH 111 GA;IL(3) or ARTH 112 GA;IL(3), MUSIC 005 GA(3), THEA 105 GA(3) to be eligible for entrance to the major. Each student must earn at least a grade of C in each 300- and 400-level course in the major field.

*Scheduling Recommendation by Semester Standing given like (Sem: 1-2)*

**GENERAL EDUCATION:** 45 credits  
(15-18 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)  
(See description of General Education in front of Bulletin.)

**FIRST-YEAR SEMINAR:**  
(Included in ELECTIVES or GENERAL EDUCATION course selection)

**UNITED STATES CULTURES AND INTERNATIONAL CULTURES:**  
(Included in GENERAL EDUCATION course selection or REQUIREMENTS FOR THE MAJOR)

**WRITING ACROSS THE CURRICULUM:**  
(Included in REQUIREMENTS FOR THE MAJOR)

**BACHELOR OF ARTS DEGREE REQUIREMENTS:** 24 credits  
(3 of these 24 credits are included in the REQUIREMENTS FOR THE MAJOR, GENERAL EDUCATION, or ELECTIVES and 0-12 credits are included in ELECTIVES if foreign language proficiency is demonstrated by examination.) (See description of Bachelor of Arts Degree Requirements in this bulletin.)

**COMMON REQUIREMENTS FOR THE MAJOR (ALL OPTIONS):** (72-73 credits)  
(This includes 15-18 credits of General Education courses; 6 credits of GA courses; 3-6

credits of GQ courses; 3 credits of GS courses, 3 credits of GWS courses.)

**PRESCRIBED COURSES:** (39 credits)

MUSIC 5 GA(3)[1], THEA 105 GA(3)[1] (Sem: 1-2)

MIS 204(3), MKTG 301(3)[1] (Sem: 3-4)

ECON 102 GS(3), ENGL 202D GWS(3) (Sem: 4)

ACCTG 211(4), ARTSA 301(3)[1], ARTSA 402(3)[1], ARTSA 403(3)[1], ARTSA 404(3)[1], BA 241(2), COMM 370(3)[1][18] (Sem: 5-6)

**ADDITIONAL COURSES** (12 credits)

Select 3 credits from: ARTH 111 GA;IL(3)[1][18] or ARTH 112 GA;IL(3)[1][18]

Select 3 credits from: MATH 21 GQ(3) or higher (Sem: 1-2)

Select 3 credits from: ARTSA 401(3)[1] or COMM 472(3)[1]

Select 3 credits from ARTSA 495A (3)[1]

Students desiring to take an internship for ARTSA credit must have a GPA of 3.00.

Students with lower than a 3.00 GPA can request an exemption by providing letters of recommendation for the internship form 2 members of the ARTSA faculty

OR

Students may enroll in an additional COMM or MKTG course at the 400 level to develop option-specific competencies instead of taking ARTSA 495A.

**REQUIREMENTS FOR THE OPTION** (21-22 credits)

**DIGITAL MEDIA OPTION** (21 credits)

**PRESCRIBED COURSES** (9 credits)

COMM 320(3)[1], COMM 441(3)[1], ENGL 420(3)[1]

**ADDITIONAL COURSES** (6 credits)

Select 3 credits from: ARTH 111 GA;IL(3)[1] or ARTH 112 GA;IL(3)[18] or MUSIC 8 GA(3)[18] or THEA 102 GA(3)[18]

Select 3 credits from COMM 270(3)[1][18] or GD 100 GA(3)[18]

**SUPPORTING COURSES AND RELATED AREAS** (6 credits)

Select 6 credits from program approved list in Music, Theatre or Visual Arts in consultation with adviser and according to student interest (Sem: 4-7)

**MARKETING OPTION** (22 credits)

**PRESCRIBED COURSES** (3 credits)

MKTG 342(3)[1]

**ADDITIONAL COURSES** (10 credits)

Select 3 credits from ARTH 111 GA;IL(3)[18] or ARTH 112 GA;IL(3)[18] or MUSIC 8 GA(3)[18] or THEA 102 GA(3)[18] (Sem: 1-4)

Select 3 credits from MKTG 344(3)[1] or MKTG 330(3)[1]

Select 4 credits from SCM 200 GQ(4)[1] or STAT 200 GQ(4)[1]

**SUPPORTING COURSES AND RELATED AREAS** (9 credits)

Select 6 credits from program approved list in Music, Theatre or Visual Arts in consultation with adviser and according to student interest. In addition, students will select 3 credits from a program-approved list of 400 level courses in Marketing. (Sem: 4-7)

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

[18] A grade of C or better per course is required for teacher certification.

Last Revised by the Department: Fall Semester 2017

Blue Sheet Item #: 46-01-134

Review Date: 8/22/2017

## Business

*Abington College (BSBAB)*

*Altoona College (BSBAL)*

*Berks College (BSBBL)*

*University College (BSBCC): Penn State Beaver, Penn State Brandywine, Penn State DuBois, Penn State Fayette, Penn State Greater Allegheny, Penn State Hazleton, Penn State Lehigh Valley, Penn State Mont Alto, Penn State New Kensington, Penn State Schuylkill, Penn State Shenango, Penn State Wilkes-Barre, Penn State Worthington Scranton, Penn State York University College (BSBIC) via the World Campus*

The Bachelor of Science in Business (B.S.B.) is a professionally oriented business degree program that combines the theoretical underpinnings of core business disciplines, notably management, marketing, finance, and supply chain management, with applied study in a practical setting. Through the choice of an 18-credit option, students specialize in a key business sector. Students also develop written and oral communication skills throughout the program, acquire contemporary technology skills, and engage in active and collaborative learning. The degree allows students to become familiar with the unique business environments of their local communities, a design that sets the degree apart from other business degrees offered within the University and throughout the Commonwealth.

Not all options are available at every campus. Contact the campus you are interested in attending to determine which options are offered.

**ACCOUNTING OPTION:** This option prepares students to pursue careers in business with an emphasis on the areas of financial and managerial accounting, systems and controls, auditing, and taxation.

**ENTREPRENEURSHIP OPTION:** This option prepares students to pursue entrepreneurial careers with emphasis on idea generation, opportunity analysis, new product creation, and business plan development.

**FINANCIAL SERVICES OPTION:** This option prepares students to pursue careers in financial organizations with emphasis on wealth management, tax planning, risk management, and financial analysis.

**HEALTH SERVICES OPTION:** This option prepares students to pursue careers in the health services sector with emphasis on the financial and administrative aspects of health care enterprises.

**INDIVIDUALIZED BUSINESS OPTION:** This option provides the opportunity for students to pursue an approved business-focused interdisciplinary program of study.

**MANAGEMENT AND MARKETING OPTION:** This option prepares students to pursue careers in business organizations with an emphasis on the skills and knowledge necessary for the business professional to function in community and regional centers of commerce.

**Entrance Requirement:** Completion of MATH 022 or MATH 040, 041, 110, 140.

For the B.S. degree in Business, a minimum of 120 credits is required, 15 of which must be at the 400 level.

*Scheduling Recommendation by Semester Standing given like (Sem: 1-2)*

**GENERAL EDUCATION:** 45 credits  
(12 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)  
(See description of General Education in front of *Bulletin*.)

**FIRST-YEAR SEMINAR:**  
(Included in ELECTIVES or GENERAL EDUCATION course selection)

**UNITED STATES CULTURES AND INTERNATIONAL CULTURES:**  
(Included in ELECTIVES or GENERAL EDUCATION course selection)

**WRITING ACROSS THE CURRICULUM:**  
(Included in REQUIREMENTS FOR THE MAJOR)

**ELECTIVES:** 10 credits

**REQUIREMENTS FOR THE MAJOR:** 77 credits  
(This includes 12 credits of General Education courses: 6 credits of GQ courses; 6 credits of GS courses.)

**COMMON REQUIREMENTS FOR THE MAJOR (ALL OPTIONS):** 59 credits

**PRESCRIBED COURSES** (41 credits)  
ECON 102 GS(3) (Sem: 1-4)  
ACCTG 211(4), ECON 104 GS(3), MIS 204(3) (Sem: 3-4)  
BA 321(3)[1], BA 322(3)[1], BA 420(1)[1], FIN 301(3)[1], MGMT 301(3)[1], MKTG 301(3)[1], SCM 301(3)[1] (Sem: 5-6)  
IB 303 IL(3)[1] (Sem: 5-8)  
BA 421(3)[1], BA 422(3)[1] (Sem: 7-8)

**ADDITIONAL COURSES** (15-18 credits)  
MATH 110 GQ(4) or MATH 140 GQ(4) (Sem: 1-4)  
SCM 200 GQ(4) or STAT 200 GQ(4) (Sem: 1-4)  
BA 243(4) or BA 241(2) and BA 242(2) (Sem: 3-4)  
Select 3 or 6 credits from BA 495A(3 or 6)[1], BA 495B(3 or 6)[1] (Sem: 7-8)

**SUPPORTING COURSES AND RELATED AREAS** (0-3 credits)  
Select 0-3 credits from 400-level business courses from: ACCTG, BA, ECON, ENTR, FIN, FINSV, HPA, IB, MGMT, MIS, MKTG, RM, or SCM [1] (Sem: 7-8)

**REQUIREMENTS FOR THE OPTION:** 18 credits [1]

**ACCOUNTING OPTION:** (18 credits)

**PRESCRIBED COURSES** (9 credits)  
ACCTG 404(3), ACCTG 471(3), ACCTG 472(3) (Sem: 5-6)

**ADDITIONAL COURSES** (6 credits)  
ACCTG 403(3) or 403W(3) (Sem: 7-8)  
ACCTG 405(3) or FINSV 411(3) (Sem: 7-8)

**SUPPORTING COURSES AND RELATED AREAS** (3 credits)  
Select 3 credits of 400-level courses from: ACCTG, BA, ECON, ENTR, FIN, FINSV, HPA, IB, MGMT, MIS, MKTG, RM, or SCM (Sem: 7-8)

**ENTREPRENEURSHIP OPTION: (18 credits)**

**PRESCRIBED COURSES (9 credits)**

ENTR 300(3), ENTR 320(3) (Sem: 5-6)

ENTR 400(3) (Sem: 7-8)

**ADDITIONAL COURSES (0-3 credits)**

Select 0-3 credits in CAS 352(3) or ENGL 419(3) (Sem: 7-8)

**SUPPORTING COURSES AND RELATED AREAS (6-9 credits)**

Select 6 to 9 credits of 400-level ENTR courses in consultation with your advisor (Sem: 5-8)

**FINANCIAL SERVICES OPTION: (18 credits)**

**PRESCRIBED COURSES (3 credits)**

FIN 420(3) (Sem: 5-8)

**ADDITIONAL COURSES (3 credits)**

Select 3 credits from ACCTG 405 or FINSV 411 (Sem: 5-8)

**SUPPORTING COURSES AND RELATED AREAS (12 credits)**

Select 12 credits in 300 or 400-level (with at least 3 credits at the 400-level) from ACCTG, FIN, FINSV or RM (Sem: 5-8)

**HEALTH SERVICES OPTION: (18 credits)**

(Minimum 6 credits at the 400-level)

**PRESCRIBED COURSES (6 credits)**

HPA 101(3) (Sem: 5-6)

HPA 332(3) (Sem: 5-8)

**ADDITIONAL COURSES (0-3 credits)**

Select 0-3 credits from BBH 302(3), CAS 352(3), CAS 404(3), ENGL 416(3), ENGL 419(3), LER 424(3), LER 472(3), PSYCH 281 GS(3), PSYCH 484(3), or PSYCH 485(3) (Sem: 5-8)

**SUPPORTING COURSES AND RELATED AREAS (9-12 credits)**

Select 3-9 credits from 300 or 400-level HPA courses (Sem: 5-8)

Select 0-6 credits of 300-400-level courses from ACCTG, BA, ECON, ENTR, FIN, FINSV, HPA, IB, MGMT, MKTG, MIS, RM or SCM (Sem: 6-8)

**INDIVIDUALIZED BUSINESS OPTION: (18 credits)**

Select 18 credits of study (with at least 3 credits at the 400-level) as submitted by the student and approved by the campus BSB Program Coordinator (Sem: 5-8)

**MANAGEMENT AND MARKETING OPTION: (18 credits)**

**ADDITIONAL COURSES (0-6 credits)**

Select 0-6 credits from the following: BA 250(3), ENGL 419(3), MKTG 220(3) or one of the following, CAS 250(3), CAS 252(3), CAS 352(3), CAS 404(3) (Sem: 5-8)

**SUPPORTING COURSES AND RELATED AREAS (12-18 credits)**

A minimum of 3 credits of supporting courses must be selected at the 400-level.

Select 3 credits from 300 or 400-level MGMT courses (Sem: 5-8)

Select 3 credits from 300 or 400-level MKTG courses (Sem: 5-8)

Select 6-12 additional credits in 300 or 400-level courses from MGMT or MKTG courses (Sem: 6-8)

**[1]** A student enrolled in this major must receive a grade of C or better, as specified in

Senate Policy 82-44.

Last Revised by the Department: Fall Semester 2013

Blue Sheet Item #: 42-04-065

Review Date: 01/14/2014

UCA Revision #1: 8/3/06

## Comments

# Corporate Communication

*Abington College (CCBA)*

*University College: Penn State Fayette, Penn State Hazleton, Penn State Lehigh Valley, Penn State Schuylkill, Penn State Wilkes-Barre, Penn State Worthington Scranton (CCCC)*

*PROFESSOR Roy Robson, Head, Division of Arts and Humanities*

The Penn State Corporate Communication Bachelor of Arts (CCBA) program prepares students for various strategic communication roles inside and outside organizations. Graduates of the program hold titles such as public relations professional, social media strategist, speech and copywriter, political aide, marketing communication manager, organizational learning and development specialist, corporate recruiter, and event planner. Graduates have earned advanced degrees in areas such as Business, Law, and Corporate Communication.

The CCBA program is interdisciplinary. While providing depth of study in Corporate Communication, it also includes mandatory Business courses and courses focusing on web based competencies such as writing for the web and digital design. With its overall emphasis on the human and design aspects of contemporary organizations, the program is particularly well-suited to individuals seeking to develop and apply their analytical, verbal, and creative talents. Such talents foster aptitudes in strategic counseling and integrative praxis that, in part, make a Corporate Communication degree unique and highly sought after in the marketplace.

For the B. A. degree in Corporate Communication, a minimum of 120 credits is required.

*Scheduling Recommendation by Semester Standing given like (Sem: 1-2)*

**GENERAL EDUCATION:** 45 credits  
(3-9 of these 45 credits are included in REQUIREMENTS FOR THE MAJOR)  
(See description of General Education in this bulletin)

**FIRST-YEAR SEMINAR:**  
(Included in ELECTIVES or GENERAL EDUCATION course selection)

**UNITED STATES CULTURES AND INTERNATIONAL CULTURES:**  
(Included in ELECTIVES or GENERAL EDUCATION courses)

**WRITING ACROSS THE CURRICULUM:**  
(Included in REQUIREMENTS FOR THE MAJOR)

**ELECTIVES:** 5-9 credits

**BACHELOR OF ARTS DEGREE REQUIREMENTS:** 24 credits  
(3 of these 24 credits are included in the REQUIREMENTS FOR THE MAJOR, GENERAL

EDUCATION, or ELECTIVES and 0-12 credits are included in ELECTIVES if foreign language proficiency is demonstrated by examination.)

(See description of Bachelor of Arts Degree Requirements in this bulletin.)

**REQUIREMENTS FOR THE MAJOR: 51-52 credits**<sup>[1]</sup>

(This includes 3-9 credits of General Education courses: 3-6 credits of GS courses; 0-3 credits of GH courses.)

**PRESCRIBED COURSES** (27 credits)

CAS 204(3), CC 200(3), COMM 100 GS(3) (Sem: 1-4)

MGMT 301(3) (Sem: 3-4)

MKTG 301(3) (Sem: 3-4)

CC 401(3), CC 402(3), CC 490W(3), CC 495A(3) (Sem: 7-8)

**ADDITIONAL COURSES** (24-25 credits)

Select 3 credits from: ECON 102 GS(3); ECON 104 GS(3) (Sem: 1-4)

Select 3-4 credits from: B A 243(4); PHIL 103 GH(3); PHIL 106 GH(3); PHIL 123 GH(3) (Sem: 1-4)

Select 3 credits from: ART 201(3); COMM 241(3); IST 110 GS(3) (Sem: 1-4)

Select 3 credits from: CAS 250(3); CAS 252(3); CAS 352(3); ENGL 211(3) (Sem: 3-7)

Select 3 credits from: CC 406(3); ENGL 420(3); ENGL 480(3) (Sem: 5-8)

Select 6 credits from: CAS 403(3); CAS 404(3); CAS 455/WMNST 455 US(3); CAS 471 US;IL(3); MGMT 433(3); MKTG 310(3) (Sem: 5-8)

Select 3 credits from: CC 404(3); CC 405(3); COMM 472(3) (Sem: 5-8)

**[1]** A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Last Revised by the Department: Spring Semester 2016

Blue Sheet Item #: 44-06-000A

Review Date: 04/5/2016

Publications update of division head: 09/15/06

UCA Revision #1: 8/3/06

AB

## Elementary and Early Childhood Education

*Penn State Abington*

*Penn State Altoona*

*Penn State Berks*

*Penn State Erie, The Behrend College*

*University Park, College of Education (CEAED)*

PROFESSOR STEPHANIE SERRIERE, *Director*

Not all options are available at every campus. Contact the campus you are interested in attending to determine which options are offered.

**ELEMENTARY & EARLY CHILDHOOD EDUCATION.** The Elementary and Early Childhood Education (ECEE) major prepares candidates to teach all content areas in Pre-Kindergarten through grade 4 (PK-4). Requirements for successful completion of the major include coursework specific to elementary and early childhood learning



environments, child development, and field experiences in grades PK-4 classrooms, as well as content and teaching methods courses specific to teaching language and literacy, mathematics, science, and social studies. Students who successfully complete this major will have met all coursework and field experience requirements for the PK-4 Instructional I Certificate issued by the Pennsylvania Department of Education (PDE). In addition, they will have been prepared for the appropriate PRAXIS exams, which are the standardized assessment required by PDE for this certification.

Students must apply for admission to the major. Students interested in the major should contact their advisor and enroll in a C I 295 field experience, which features participation in the classroom.

Baccalaureate degree candidates must meet the following requirements 1-3 by the end of their third semester:

1. A minimum cumulative grade point average of 3.00.
2. Satisfaction of any basic-skills or entrance testing requirements as specified by the Pennsylvania Department of Education in force at the time of application for entrance to the major.

Requirements 3-8 must be met by the end of the fourth semester when students typically participate in the Entrance to Major process.

3. A grade of "C" or better in all specified courses.
4. Completion of an early field experience specified by the certification program.
5. Completion of a core of Education courses specified by the certification program.
6. Completion of additional credits as specified by the certification program.
7. Completion of at least 48 semester credit hours, including ENGL 015 GWS(3) or ENGL 030 GWS(3), six credits of quantification, and three credits of natural science.
8. Approval from the professional education adviser or the head of the pertinent certification program.

For the B.S. degree in Elementary & Early Childhood Education PK-4, a minimum of 127 credits is required.

**GENERAL EDUCATION:** 45 credits  
(27 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)  
(See description of General Education in this bulletin.)

**FIRST YEAR SEMINAR:**  
(Included in GENERAL EDUCATION course selection)

**UNITED STATES CULTURES AND INTERNATIONAL CULTURES:**  
(Included in ELECTIVES, GENERAL EDUCATION course selection, or REQUIREMENTS FOR THE MAJOR)

**WRITING ACROSS THE CURRICULUM:**  
(Included in REQUIREMENTS FOR THE MAJOR)

**REQUIREMENTS FOR THE MAJOR:** 109-110 credits **[1]**  
(This includes 27 credits of General Education courses: 6 credits of GH courses, 9 credits of GN courses, 6 credits of GQ courses, 6 credits of GS)

**PRESCRIBED COURSES** (76 credits)  
C I 295A(3), HD FS 229 GS(3) (Sem: 1-3)  
C I 280 GH(3), EDPSY 014(3), EDTHP 115 US(3), MATH 200 GQ(3) (Sem: 1-4)  
A ED 303(3), C I 495A(3), C I 495D(12), C I 495F(3), E C E 451(3), E C E 479(3), KINES 126(1.5), KINES 127(1.5), LL ED 400(3), LL ED 401(3), LL ED 402(3), MTHED 420(3), MUSIC 241(3), SCIED 458(3), SPLED 400(4), SPLED 403A(3), SS ED 430W(3) (Sem: 5-8)

**ADDITIONAL COURSES** (6-7 credits)

Select 3-4 credits from: EDPSY 101 GQ(3); STAT 100 GQ(3); STAT 200 GQ(4) (Sem: 1-4)  
AND

Any MATH GQ course (Sem: 1-4)

**SUPPORTING COURSES AND RELATED AREAS** (27 credits)

Select 3 credits in of Economic Geography (GS;US;IL) (Sem: 1-4)

Select 3 credits in literature (GH) (Sem: 1-4)

Select 3 credits of US History (GS;US;IL) (Sem: 1-4)

Select 9 credits: 3 credits each (including one course with a lab) from biological science, earth science, and physical science (GN) (Sem: 1-6)

Select 3 credits on family and relationships from:

E C E 453(3), HD FS 315 US(3), HD FS 415(3), HD FS 418(3), HD FS 424 US(3), HD FS 431(3), HD FS 469U IL(3), SOC 030 GS(3), or WL ED 444(3) (Sem: 1-4)

Select 6 credits of educational selections from:

APLNG 484(3), APLNG 493 IL(3), C I 405(3), CMAS 465(3), DANCE 412(3), E C E 452(3), E C E 454(3), EDLDR 409(3), EDLDR 476(3), EDLDR 480(3), EDPSY 421(3), EDTHP 401 IL(3), EDTHP 411 US(3), EDTHP 412(3), EDTHP 416 US(3), EDTHP 420(3), EDTHP 427(3), EDTHP 430(3), EDTHP 435(3), EDTHP 440(3), EDTHP 441(3), EDTHP 447 US(3), EDUC 302(3), EDUC 466(3), EDUC 467(3), EDUC 468(3), HD FS 301(3), HD FS 311(3), HD FS 315 US(3), HD FS 330(6), HD FS 411(3), HD FS 412(3), HD FS 418(3), HD FS 424 US(3), HD FS 428(3), HD FS 429(3), HD FS 430(6), HD FS 432(3), HD FS 440(3), HD FS 447(3), HD FS 499 IL(1-12), LDT 400(3), LL ED 450(3), LL ED 462(3), LL ED 464(3), SPLED 401(4), SPLED 409A(3), SPLED 409B(3), SPLED 419(3), SPLED 454(4), SPLED 461(3), WL ED 400(3), WL ED 444(3) or WL ED 483(3) (Sem: 5-8)

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Last Revised by the Department: Fall Semester 2016

Blue Sheet Item #: 45-01-054

Review Date: 8/23/2016

R & T: 01/14/2014

ED

**PROGRAM CURRENTLY ON HOLD;  
NOT ACCEPTING NEW STUDENTS  
Begin Date of Enrollment Hold: September 10, 2010**

\*\*Please Note: Individuals interested in earning Pennsylvania teaching credentials for grades PK-8 should refer to the **Childhood and Early Adolescent Education** major.

## Elementary and Kindergarten Education

*Altoona College (EEDAL): Elementary Education Teaching Option*

*Berks College (EEDBL)*

*University Park, College of Education (EK ED)*

Not all options are available at every campus. Contact the campus you are interested in attending to determine which options are offered.

PROFESSOR STEPHANIE SERRIERE, *in charge*

This major offers teaching options in Early Childhood Education and in Elementary Education. Students successfully completing this major will have met all of the requirements for the N-3 or K-6 College Instructional I certificate issued by the Pennsylvania Department of Education. Students must indicate their choice of teaching option at the time they make application for admission to a teacher education major. Students who are undecided at this time about which teaching option to select should contact their adviser and enroll in a field experience featuring participation in the classroom.

**EARLY CHILDHOOD TEACHING OPTION:** Students successfully completing this option will have met all of the requirements for the N-3 Instructional I certificate issued by the Pennsylvania Department of Education. Special courses in both human development and education are used to integrate understanding of preschool programs with relevant theories of child development.

**ELEMENTARY EDUCATION TEACHING OPTION:** Students successfully completing this option will have met all of the requirements for the K-6 Instructional I certificate issued by the Pennsylvania Department of Education.

For the B.S. degree in Elementary and Kindergarten Education, a minimum of 129.5 credits is required for the Early Childhood Teaching Option and a minimum of 122 credits is required for the Elementary Education Teaching Option. (See also [Teacher Education Programs](#).)

*Scheduling Recommendation by Semester Standing given like (Sem: 1-2)*

**GENERAL EDUCATION:** 45 credits  
(27-30 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)  
(See description of General Education in this bulletin.)

**FIRST-YEAR SEMINAR:**  
(Included in ELECTIVES or GENERAL EDUCATION course selection)

**UNITED STATES CULTURES AND INTERNATIONAL CULTURES:**  
(Included in ELECTIVES, GENERAL EDUCATION course selection, or REQUIREMENTS FOR THE MAJOR)

**WRITING ACROSS THE CURRICULUM:**  
(Included in REQUIREMENTS FOR THE MAJOR)

**ELECTIVES:** 0-3 credits

**REQUIREMENTS FOR THE MAJOR:** 101-117 credits  
(This includes 27-30 credits of General Education courses: 6 credits of GS, 6 credits of GQ, 6 credits of GH, and 9 credits of GN courses for both options. The Early Childhood Teaching option permits 3 credits of GHA.)

**COMMON REQUIREMENTS FOR THE MAJOR (ALL OPTIONS):** 84.5-85.5 credits<sup>[1]</sup>

**PRESCRIBED COURSES** (57.5 credits)  
C I 295(2), EDPSY 014(3), ENGL 100(3), MATH 200 GQ(3) (Sem: 1-4)  
A ED 303(3), C I 495B(3), C I 495D(12), C I 495F(3), KINES 126(1.5), LL ED 400(3), LL ED 401(3), LL ED 402(3), MTHED 420(3), MUSIC 241(3), SCIED 458(3), SPLED 400(3), SS ED 430W(3) (Sem: 5-8)

**ADDITIONAL COURSES** (15-16 credits)

EDTHP 115 US(3) or EDTHP 115A GS;US(3) (Sem: 1-3)

HIST 020 GH;US(3) or HIST 021 GH;US(3) (Sem: 1-4)

STAT 100 GQ(3), STAT 200 GQ(4) or EDPSY 101 GQ(3) (Sem: 1-4)

ECON 102 GS(3), ECON 104 GS(3) or ECON 014 GS(3) (Sem: 1-8)

GEOG 020 GS;US;IL(3), GEOG 030 GS;IL(3), GEOG 126 GS;US;IL(3), GEOG 122 GH;US(3),

GEOG 123 GS;IL(3), GEOG 120 GS;US;IL(3), GEOG 124 GS;IL(3), or GEOG 128 GS;IL(3) (Sem: 1-8)

**SUPPORTING COURSES AND RELATED AREAS** (12 credits)

Select 3 credits in literature GH (Sem: 1-4)

Select 9 credits: 3 credits each (including one course with a lab) from the following GN biological science, earth science and physical science (Sem: 1-6)

**REQUIREMENTS FOR THE OPTION:** 16.5-30 credits**EARLY CHILDHOOD TEACHING OPTION:** (27-30 credits)**[1]****PRESCRIBED COURSES** (15 credits)

E C E 451(3), E C E 452(3), E C E 453(2), E C E 454(3), E C E 479(3), C I 495A(1) (Sem: 5-8)

**ADDITIONAL COURSES** (12-15 credits)

H P A 101(3) or NUTR 251 GHA(3) (Sem: 1-2)

HD FS 315 US(3) or SOC 030 GS(3) (Sem: 1-4)

HD FS 229 GS(3) or PSYCH 100 GS(3) and PSYCH 212 GS(3) (Sem: 1-4)

HD FS 428(3) or HD FS 429(3) (Sem: 5-8)

**ELEMENTARY EDUCATION TEACHING OPTION:** (16.5-19.5 credits)**[1]****PRESCRIBED COURSES** (1.5 credit)

KINES 127(1.5) (Sem: 5-8)

**ADDITIONAL COURSES** (3-6 credits)

HD FS 229 GS(3) or EDPSY 010 GS(3) or PSYCH 100 GS(3) and PSYCH 212 GS(3) (Sem: 1-4)

**SUPPORTING COURSES AND RELATED AREAS** (12 credits)

Select 3 credits in MATH or MTHED (Sem: 1-8)

Select 6 credits from EDTHP at the 400 level, ECE at the 400 level, SPLED at the 400 level, EDLDR 405(3), EDLDR 497(1-9), LL ED 497(1-9) (Sem: 5-8)

Select 3 credits in U.S. History (Sem:1-8)

**[1]** A grade of C or better per course is required for teacher certification.

Last Revised by the Department: Summer Session 2005

Blue Sheet Item #: 33-06-097

Review Date: 2/12/08

UCA Revision #1: 8/3/06

ED

## Health Policy and Administration

*Capital College (HPACA)**University Park, College of Health and Human Development (H P A)*

*University College: Penn State Lehigh Valley, Penn State Mont Alto (HPACC)  
Penn State World Campus*

PROFESSOR MARIANNE HILLEMIER, *Head of the Department*

This major helps prepare students for management and policy positions or graduate study in the field of health care. Students in the major develop the skills and knowledge needed to understand the complex societal problem of providing access to quality health care at reasonable cost. All Health Policy and Administration students complete an internship in a health-care-related setting, giving them valuable experience and contacts in the industry. HPA students study a multidisciplinary curriculum that prepares them to work as health services managers or health analysts. Health services managers, also called health care executives or health care administrators, plan, direct, and coordinate medical, health, and/or long-term care services. They might manage an entire facility or specialize in managing a specific clinical area or department, administrate a program or manage a practice for a group of providers. Health analysts are employed throughout the health care industry gathering, compiling, modeling, validating, and analyzing data needed by different organizations of providers, payers, and policy makers. Analysts help these organizations understand the current trends in the health care system and to make well-informed decisions. Both health services managers and analysts must be able to adapt to changes in health care laws, regulations, and technology. HPA students have also used the degree to prepare for graduate study in business, law, medicine or allied health fields, health administration, health services research or policy, and public health.

The requirements for the major are outlined below. Students may select courses in the Supporting Courses and Related Areas category to fulfill requirements for a minor, to develop a specialization, or to complete courses required for admission to medical, dental, law, or other graduate schools.

For the B.S. degree in Health Policy and Administration, a minimum of 120 credits is required.

The integrated B.S. in Health Policy and Administration/Master of Health Administration (MHA) program allows qualified undergraduate students to earn both degrees in five calendar years of full time academic study.

Per Senate Policy 83.80.5, the college dean or campus chancellor and program faculty may require up to 24 credits of course work in the major to be taken at the location or in the college or program where the degree is earned. H P A requires students to complete 24 credits for the major through courses taken at University Park. Courses taken at other Penn State campuses may not be counted toward this 24 credit minimum. For more information, check the Recommended Academic Plan for this major.

*Scheduling Recommendation by Semester Standing given like (Sem: 1-2)*

**GENERAL EDUCATION:** 45 credits  
(12 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)  
(See description of General Education in this bulletin.)

**FIRST-YEAR SEMINAR:**  
(Included in ELECTIVES or GENERAL EDUCATION course selection)

**UNITED STATES CULTURES AND INTERNATIONAL CULTURES:**  
(Included in ELECTIVES or GENERAL EDUCATION course selection)

**WRITING ACROSS THE CURRICULUM:**  
(Included in REQUIREMENTS FOR THE MAJOR)

**ELECTIVES:** 4-6 credits

**REQUIREMENTS FOR THE MAJOR:** (81-83 credits)

(This includes 12 credits of General Education courses: 6 credits of GQ courses; 6 credits of GS courses.)

**PRESCRIBED COURSES** (36 credits)**[1]**

ECON 102 GS(3), PLSC 1 GS(3), (Sem: 1-4)

HPA 101(3), HPA 210(3), HPA 211(3), HPA 301(3), HPA 310(3), HPA 311(3), HPA 332(3), HPA 390(3), HPA 395(3), HPA 455(3) (Sem: 1-8)

**ADDITIONAL COURSES** (15-17 credits)**[1]**

STAT 200 GQ(4) or STAT 250 GQ(3) (Sem: 1-4)

CMPSC 101 GQ(3) or CMPSC 203 GQ(4) (Sem: 3-4)

Select 9 credits from HPA 401 IL(3), HPA 410(3), HPA 420(3), HPA 430(3), HPA 433(3), HPA 440 US;IL(3), HPA 442(3), HPA 445(3), HPA 447(3), HPA 450(3), HPA 460(3), HPA 470(3), HPA 490(3) or HPA 497 (Sem: 5-8)

**SUPPORTING COURSES AND RELATED AREAS** (30 credits)

(Must include at least 9 credits at the 400 level)

Select 30 credits from University-wide offerings on department list in consultation with adviser (Sem: 5-8)

## **Integrated B.S. in Health Policy and Administration/Master of Health Administration (M.H.A.) Admission and Degree Requirements**

The following credentials will be considered for admission:

A demonstrated ability to communicate effectively, an advanced level of maturity, and high motivation to pursue a career in the health care field

Academic references

Successful completion of 60 credits having maintained a cumulative GPA of 3.4 or better

Students admitted to the B.S. in Health Policy and Administration/MHA integrated program are able to earn both the B.S. and MHA in five calendar years of full time academic study.

A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Last Revised by the Department: Fall Semester 2015 (H P A); Summer Session 2005 (Integrated B.S./H P A-M.H.A.)

Blue Sheet Item #: 44-02-032 (H P A); 38-06-114A (Integrated B.S./H P A-M.H.A.)

Review Date: 10/13/2015

HH

## **Information Sciences and Technology**

*Abington College (ISSAB)*

*Berks College (ISSBL)*

*Capital College (ISSCA)*

*University College: Penn State Beaver, Penn State Brandywine, Penn State Greater Allegheny, Penn State Hazleton, Penn State New Kensington, Penn State Lehigh Valley, Penn State Mont Alto, Penn State Schuylkill, Penn State Wilkes-Barre, Penn State Worthington Scranton, Penn State York (ISSCC)*

*World Campus (ISSWC\_BS)*

*University Park, College of Information Sciences and Technology (ISTBS)*

*Mary Beth Rosson, Associate Dean for Graduate and Undergraduate Studies, College of IST*

Not all options are available at every campus. Contact the campus you are interested in attending to determine which options are offered.

This major is structured to provide students with the theoretical frameworks and skill sets necessary to compete and be productive in the information technology-intensive global context that defines the new "Information Age." Specifically, the degree will be focused on a program that will build an understanding of core information technologies and related areas of study; will prepare students for the practical application of various information sciences and related technologies; and engage students in sharpening their abilities to think critically and to work in teams. All this will be done with considerable interdisciplinary integration in order to expose students to the cognitive, social, institutional, and global environments of IST. Team projects in most courses, a required internship, and a senior capstone experience provide additional, focused venues for involving students in the cutting-edge issues and technologies of the field.

**INFORMATION CONTEXT: PEOPLE, ORGANIZATIONS, AND SOCIETY OPTION:** This option focuses on how information technology affects social change and the delivery of information to the consumer. This includes the human-machine interface; organization and retrieval of information; digital libraries; information and telecommunications services; information and media industry structures; software services and intermediaries; telecommunications and information law and policy; sociological aspects of technology change; multimedia; and art, design, and aesthetics.

**INFORMATION SYSTEMS: DESIGN & DEVELOPMENT OPTION:** This option is focused on expanding the skills needed to develop advanced information technology systems using state-of-the-art tools and techniques. The emphasis is on providing the student with both knowledge in the design, implementation, testing and evolution of complex software systems as well as a set of project-oriented, team-programming experiences.

**INFORMATION TECHNOLOGY: INTEGRATION & APPLICATION OPTION:** This option is designed to prepare students to use information technology to realize a variety of system-based goals (e.g., reliability, accessibility, efficiency, etc.). It is focused on developing a theoretical foundation and the skill set needed for integrating information technology into different systems for the purpose of enhancing system performance. The emphasis is on providing the student with both the theoretical frameworks needed to use information technology as a system attribute as well as a set of application-oriented experiences and skills.

**Entrance Requirements:** To be eligible for entrance to the Information Sciences and Technology (ISTBS) major, students must:

1. have completed the following entrance-to-major requirements with a grade of C or better in each: IST 110(3); IST 140(3) (or equivalent CMPSC 101 GQ(3) or CMPSC 121 GQ(3)), IST 210(3), and IST 220(3).
2. have achieved a minimum cumulative grade point average of 2.00 prior to and



through the end of the semester during which the entrance-to-major procedure is carried out.

The Integrated Undergraduate Graduate (IUG) program is available for strong undergraduate students who wish to pursue a bachelor's and master's degree in a shorter period of time than would be necessary if the degrees were pursued separately. Information Sciences and Technology undergraduates may apply for admission to the ISTBS/ISTMS IUG program as early as the end of their sophomore year but no later than the end of their junior year after completing a minimum of 60 credits, if they meet the following admission requirements:

1. Must be enrolled in the ISTBS undergraduate degree program.
2. Must have completed 60 credits of an ISTBS undergraduate degree program.
3. Must apply to the IUG program by the end of their junior year.
4. Must apply to and be accepted without reservation into the Graduate School and M.S. program in IST. Students must complete the **Graduate School application**.
5. Must have an overall GPA of 3.5 (on a 4.0 scale) in undergraduate coursework and a minimum GPA of 3.5 in all coursework completed for the major.
6. Must present an approved plan of study. The plan should cover the entire time period of the integrated program, and it should be reviewed periodically with an adviser.
7. Must present two letters of recommendation from faculty members. (Note: For Schreyer Honors College students, these can be the same two letters required by the Schreyer Honors College.)
8. Must meet with both the Director of Undergraduate Academic Affairs and the Graduate Program Coordinator to declare interest and receive information about the IUG program.

For Schreyer Honors College students, students admitted to the IUG program may double-count a maximum of 12 credits toward their graduate and undergraduate degrees in Information Sciences and Technology. Thesis or scholarly paper credits may not double-count.

For the B.S. degree in Information Sciences and Technology, a minimum of 125 credits is required.

*Scheduling Recommendation by Semester Standing given like (Sem: 1-2)*

**GENERAL EDUCATION:** 45 credits  
(12 credits are included in the REQUIREMENTS FOR THE MAJOR)  
(See description of General Education in front of the *Bulletin*.)

**FIRST-YEAR SEMINAR:**  
(Included in ELECTIVES or GENERAL EDUCATION course selection)

**UNITED STATES CULTURES AND INTERNATIONAL CULTURES:**  
(Included in REQUIREMENTS FOR THE MAJOR)

**WRITING ACROSS THE CURRICULUM:**  
(Included in REQUIREMENTS FOR THE MAJOR)

**ELECTIVES:** 8 credits

**REQUIREMENTS FOR THE MAJOR:** 84 credits  
(This includes 12 credits of General Education courses; 6 credits of GQ courses; 3 credits of GS courses; and 3 credits of GWS courses.)

**COMMON REQUIREMENTS FOR THE MAJOR (ALL OPTIONS):** 60 credits



**PRESCRIBED COURSES** (26 credits)

IST 110 GS(3)[1], IST 210(3)[1], IST 220(3)[1], IST 230(3)[1] (Sem: 1-4)  
STAT 200 GQ(4) (Sem: 3-6)  
IST 495(1)[1] (Sem: 3-8)  
IST 301(3)[1], IST 331(3)[1] (Sem: 5-8)  
IST 440(3)[1] (Sem: 7-8)

**ADDITIONAL COURSES** (13 credits)

CMPSC 101 GQ(3)[1], CMPSC 121 GQ(3)[1], or IST 140(3)[1] (Sem: 1-4)  
ECON 14 GS(3), ECON 102 GS(3), or ECON 104 GS(3) (Sem: 1-4)  
ENGL 202C GWS(3) or ENGL 202D GWS(3) (Sem: 1-4)  
MATH 110 GQ(4) or MATH 140 GQ(4) (Sem: 1-4)

**SUPPORTING COURSES AND RELATED AREAS** (21 credits)

Attainment of third-level proficiency in a single foreign language (12 credits). Proficiency must be demonstrated by either examination or course work. See the admission section of the general information in this *Bulletin* for the placement policy for Penn State foreign language courses. (Sem: 1-4)

Select 6 credits of international courses in foreign culture from College-approved list (Sem: 5-8)

Select 3 credits[1] at the 400 level in emerging issues and technologies from College-approved list (Sem: 5-8)

**REQUIREMENTS FOR THE OPTION: 24 credits****INFORMATION CONTEXT: PEOPLE, ORGANIZATIONS, AND SOCIETY OPTION: 24 credits****PRESCRIBED COURSES** (6 credits)[1]

IST 431(3) and IST 432(3) (Sem: 5-8)

**ADDITIONAL COURSES** (6 credits)[1]

IST 240(3) or IST 242(3) (Sem: 1-4)  
IST 302(3) or IST 413(3) (Sem: 1-4)

**SUPPORTING COURSES AND RELATED AREAS** (12 credits)

Select 12 credits from College-approved list (at least 3 credits at the 400-level and no more than 6 credits below the 200-level.) (Sem: 5-8)

**INFORMATION SYSTEMS: DESIGN & DEVELOPMENT OPTION: 24 credits****PRESCRIBED COURSES** (6 credits)[1]

IST 242(3) (Sem: 1-4)  
IST 311(3) (Sem: 5-8)

**ADDITIONAL COURSES** (9 credits)[1]

Select 3 credits from IST 261(3) or IST 361(3) (Sem: 5-8)  
Select 6 credits from IST 411(3), IST 412(3), or IST 413(3) (Sem: 5-8)

**SUPPORTING COURSES AND RELATED AREAS** (9 credits)

Select 9 credits from College-approved list (at least 3 credits must be at the 400-level.) (Sem: 5-8)

**INFORMATION TECHNOLOGY: INTEGRATION & APPLICATION OPTION: 24 credits****PRESCRIBED COURSES** (9 credits)[1]

IST 302(3), IST 420(3), IST 421(3) (Sem: 5-8)

**ADDITIONAL COURSES** (3 credits)[1]

IST 240(3) or IST 242(3) (Sem: 1-4)

## **SUPPORTING COURSES AND RELATED AREAS (12 credits)**

Select 12 credits from College-approved list (at least 3 credits at the 400-level and no more than 6 credits below the 200-level.) (Sem: 5-8)

## **Integrated B.S. in Information Sciences and Technology / M.S. in Information Sciences and Technology**

The College of Information Sciences and Technology offers an integrated B.S./M.S. (IUG) program designed to allow academically superior students in the Information Sciences and Technology major to obtain both the bachelor's in Information Sciences and Technology and M.S. degree in Information Sciences and Technology in a shorter period of time than would be necessary if the degrees were pursued separately. The first two to three years of undergraduate coursework follow the same undergraduate curriculum that other students follow in the Information Sciences & Technology major. Interested students may apply for admission to the IUG program as early as the end of their sophomore year but no later than the end of their junior year after completing a minimum of 60 credits. If admitted to the IUG, the final years of study include two graduate courses, Foundations of Theories and Methods of Information Sciences and Technology Research (IST 504) in the fall and Foundations of Research Design in Information Sciences and Technology (IST 505) in the spring, plus six credits of research methods courses, twelve credits of graduate specialty courses, and six credits of graduate thesis (IST 600) or scholarly paper (IST 594).

(Note: For Schreyer Honors College students, those who complete the graduate thesis for the Master's requirement may use the graduate thesis, itself, to fulfill the undergraduate honors thesis requirement, as well. Honors students who opt for the Master's scholarly paper must also complete an undergraduate honors thesis.)

The integrated B.S. in Information Sciences and Technology /M.S. in Information Sciences and Technology (IUG) degree meets the needs of the most academically talented students in the Information Sciences and Technology undergraduate major. A proportion of these successful students wish to pursue graduate studies sometime after graduation. Offering the IUG benefits these students by offering an accelerated path to a graduate degree. Additionally, the IUG program can provide these students with a more cohesive program of study with opportunities to engage in more comprehensive research leading to both the Bachelor's and Master's degree.

For the B.S. in Information Sciences & Technology/M.S. in Information Sciences & Technology IUG program, a minimum of 125 credits are required for the bachelor's degree and 30 credits for the M.S. degree. Students admitted to the IUG program may double-count a maximum of 12 credits to their graduate and undergraduate degrees. The required 6 credits of IST 504 and IST 505 will apply to both the graduate program and the undergraduate program. Students may choose an additional 6 credits to double-count for both the undergraduate and graduate degrees from the following: IST 411, IST 412, IST 413, IST 420, IST 421, IST 431, IST 432. Graduate thesis or scholarly paper credits may not double-count.

The objectives of the Integrated Undergraduate Graduate Program include:

1. To offer highly qualified students the opportunity to earn two degrees in less time than it would take to do two sequential degrees. In particular, IUG students may count up to 12 credits towards both their B.S. and M.S. degree requirements.
2. To permit coherent planning of studies through the graduate degree, with advising informed by not only the requirements of the baccalaureate program, but also the longer-range goals of the graduate degree.
3. To introduce undergraduate students to the rigors of both graduate study and graduate faculty.
4. To make the resources of the Graduate School available to IUG students.
5. To allow students with IUG status to benefit from their association with graduate

students whose level of work and whose intensity of interest and commitment parallel their own.

### Admission Requirements

To initiate the application process, students must submit an *Integrated Undergraduate-Graduate (IUG) Degree in Information Sciences and Technology Form*, a transcript, and two letters of recommendation (both from faculty members) to the IST Graduate Programs Office. The Director of Undergraduate Academic Affairs, in consultation with the Graduate Programs Coordinator, will help undergraduate candidates determine a proposed sequence of courses that will prepare them for acceptance into the Integrated Undergraduate-Graduate (IUG) degree program. Acceptance into the IST IUG program will be determined by the Graduate Recruitment Committee.

Information Sciences and Technology undergraduate majors may apply for admission no earlier than February 15th of their sophomore year and no later than the February 15th of their junior year after completing a minimum of 60 credits, if they meet the following admission requirements:

1. Must be enrolled in the ISTBS undergraduate degree program.
2. Must have completed 60 credits of an ISTBS undergraduate degree program.
3. Must apply to the IUG program by the end of their junior year.
4. Must apply to and be accepted without reservation into the Graduate School and M.S. program in IST. Students must complete the **Graduate School application**.
5. Must have an overall GPA of 3.5 (on a 4.0 scale) in undergraduate coursework and a minimum GPA of 3.5 in all coursework completed for the major.
6. Must present an approved plan of study. The plan should cover the entire time period of the integrated program, and it should be reviewed periodically with an adviser.
7. Must present two letters of recommendation from faculty members. (Note: For Schreyer Honors College students, these can be the same two letters required by the Schreyer Honors College.)
8. Must meet with both the Director of Undergraduate Academic Affairs and the Graduate Program Coordinator to declare interest and receive information about the IUG program.

For Schreyer Honors College students, students must also follow guidelines and procedures for applying for IUG in the Schreyer Honors College:

<http://www.shc.psu.edu/students/iug/program/>

In addition, applicants must apply to and be admitted to the Graduate School of the Pennsylvania State University at the time of their application to the IUG degree program. These admission standards are high, as it is thought the program will only be appropriate for students with high levels of academic skills. The program area does have discretion in admitting Information Sciences and Technology majors into the integrated program, and extenuating circumstances can always be considered in terms of possible admission. Individuals who are unable to be admitted into the integrated program of study can apply for regular admission to the graduate program when they complete their undergraduate program of study.

### Sample Sequence of Graduate Coursework in Addition to Undergraduate Courses

Year	Fall	Spring	MS Credits
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Year 1 (Senior Undergraduate Year)	IST 504: Foundations 3 Methods course (3)**	IST 505: Research Design (3) Methods course (3)**	30*
Year 2 (Super Senior Undergraduate Year)	IST 600 or IST 594 Thesis Research (3) Grad Speciality Course (3)** Grad Speciality Course (3)**	Methods course (3)** IST 600 or IST 594 Thesis Research (3) Grad Speciality Course (3)** Grad Speciality Course (3)**	

\* Students admitted to the IUG program may double-count a maximum of 12 credits toward their graduate and undergraduate degrees in Information Sciences and Technology. In their senior year, IUG students will take 6 credits of specified graduate work, courses IST 504 and IST 505, and 6 credits of methods courses. These 6 credits of IST 504 and IST 505 will apply to both the graduate program and the undergraduate IST/B.S. support of option requirement. In their super senior year, students may choose an additional 6 credits to double-count for both the undergraduate and graduate degrees. These courses must be at the 400-level or above. Students may choose any 400-level undergraduate option course (IST 411, IST 412, IST 413, IST 420, IST 421, IST 431, IST 432) that they are using to fulfill an undergraduate option requirement and apply the credits to both the undergraduate option requirement and the graduate specialty course requirement. Credits associated with the thesis or culminating scholarly paper, i.e., IST 600 and IST 594, may not be double-counted. However, for Schreyer Honors College students, the Master's thesis deliverable, itself, may double-count for the undergraduate thesis deliverable requirement.

\*\* Choose graduate level methods course after consultation in advance with the student's faculty adviser.

\*\*\* Choose any 400 or 500 level course that contributes to the student's chosen area of specialty with a maximum of six credits at the 400 level.

The total resulting credits will be a minimum of 155 credits, with 125 credits completed for the undergraduate IST degree. Twelve graduate credits will be completed in the senior year, and the remaining 18 graduate credits will be completed in the super senior year.

If for any reason a student admitted to the B.S./M.S. program is unable to complete the requirement for the Master of Science degree program in Information Sciences and Technology, the student will be permitted to receive the Bachelor's degree assuming all degree requirements have been satisfactorily completed.

Student performance will be monitored on an on-going basis by the student's adviser and Graduate Programs. Students admitted to the integrated program must maintain a minimum cumulative GPA of a 3.3 overall and a minimum 3.0 GPA in all courses used toward the M.S. degree in order to maintain good academic standing and meet graduation requirements. (See information on Grade-Point Average in the Graduate Bulletin: <http://bulletins.psu.edu/graduate/degree/requirements/masters#>) For Schreyer Honors College students in the IUG program, students must maintain a minimum cumulative GPA of 3.4 overall and a minimum 3.0 GPA in all courses used toward the M.S.

degree in order to maintain good academic standing and meet graduation requirements. Successful completion of a Schreyer Scholar's Master's thesis will be accepted as completion of the honors thesis requirement.

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

[2] Students in the Information Systems: Design and Development Option are expected to take IST 242 prior to taking the prescribed and additional courses for that option.

Last Revised by the Department: Fall Semester 2017

Blue Sheet Item #: 46-01-087

Review Date: 8/22/2017

IS

## Psychology

*Altoona College (PSCBA)  
University College (PYACC) - Penn State Beaver, Penn State Brandywine, Penn State Fayette, Penn State Greater Allegheny, Penn State Hazleton, Penn State Lehigh Valley, Penn State Mont Alto, Penn State New Kensington, Penn State Schuylkill, Penn State Worthington Scranton; Penn State York*

The Psychology major will combine the knowledge, skills, and values of psychology with a liberal arts foundation. Students should develop a knowledge base consisting of concepts, theory, empirical findings, and trends within psychology; understand and apply basic research methods in psychology; use critical thinking and the scientific approach to solve problems related to behavior and mental processes; apply psychological principles to personal and social issues; and be able to understand the gender, sexual orientation, race, ethnicity, culture, and class issues in psychological theory, research, and practice. Students should also develop information and computer competence, communication skills, and develop realistic ideas about how to implement their psychology education in occupational pursuits in a variety of settings. The major may lead to either a Bachelor of Arts or a Bachelor of Science degree. The B.A. degree incorporates a broad exposure to the many facets of the field of psychology, in addition to the B.A. requirements. The B.S. degree provides the same exposure to the field of psychology and adds options in Science and Business to prepare students for more specific career directions. Students in both degree programs may also prepare for graduate school; research experience with faculty members is encouraged for such students.

For the B.A. degree in Psychology, a minimum of 124 credits is required.

*Scheduling Recommendation by Semester Standing given like (Sem: 1-2)*

**GENERAL EDUCATION:** 45 credits  
(0-4 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)  
(See description of General Education in this bulletin.)

**FIRST-YEAR SEMINAR:**  
(Included in ELECTIVES or GENERAL EDUCATION course selection)

**UNITED STATES CULTURES AND INTERNATIONAL CULTURES:**  
(Included in ELECTIVES, GENERAL EDUCATION course selection, or REQUIREMENTS FOR THE MAJOR)

**WRITING ACROSS THE CURRICULUM:**

(Included in REQUIREMENTS FOR THE MAJOR)

**ELECTIVES:** 14-18 credits

**BACHELOR OF ARTS DEGREE REQUIREMENTS:** 24 credits

(3 of these 24 credits are included in the REQUIREMENTS FOR THE MAJOR, GENERAL EDUCATION, or ELECTIVES and 0-12 credits are included in ELECTIVES if foreign language proficiency is demonstrated by examination.)

(See description of Bachelor of Arts Degree Requirements in this bulletin.)

**REQUIREMENTS FOR THE MAJOR:** 41 credits<sup>[1]</sup>

(This includes 0-4 credits of General Education GQ courses.)

**PRESCRIBED COURSES** (7 credits)

PSYCH 100 GS(3) (Sem: 1-4)

PSYCH 301(4) (Sem: 3-6)

**ADDITIONAL COURSES** (34 credits)

*(Must include 15 credits at 400-level.)*

Select 4 credits from PSYCH 200 GQ(4) or STAT 200 GQ(4) (Sem: 3-4)

Select 18 credits--a minimum of 3 credits from each of the following six categories

1. Learning and Cognition: PSYCH 256 GS(3), PSYCH 261 GS(3), PSYCH 268(3), PSYCH 426(3), PSYCH 427(3), PSYCH 452(3), PSYCH 456(3), PSYCH 457(3), PSYCH 458(3), PSYCH 459(3), PSYCH 461(3) (Sem: 2-8)
2. Social and Personality Psychology: PSYCH 221 GS(3), PSYCH 231 GS;US(3), PSYCH 232 GS;US;IL(3), PSYCH 238 GS(3), PSYCH 419(3), PSYCH 420(3), PSYCH 421(3), PSYCH 423(3), PSYCH 424(3), PSYCH 432 US(3), PSYCH 438(3), PSYCH 479 US(3) (Sem: 2-8)
3. Biological Bases of Behavior: PSYCH 253 GS(3), PSYCH 260(3), PSYCH 269(3), PSYCH 441(3), PSYCH 460(3), PSYCH 462(3), PSYCH 463(3), PSYCH 464(3), PSYCH 475(3), PSYCH 478(3) (Sem: 2-8)
4. Developmental Psychology: PSYCH 212 GS(3), PSYCH 410(3), PSYCH 412(3), PSYCH 413(3), PSYCH 414(3), PSYCH 415(3), PSYCH 416(3)/HDFS 445(3), PSYCH 474(3) (Sem: 2-8)
5. Applied and Clinical Psychology: PSYCH 243 GS(3), PSYCH 244 GS(3), PSYCH 270(3), PSYCH 281 GS(3), PSYCH 370 US(3), PSYCH 404(3), PSYCH 408(3), PSYCH 443(3), PSYCH 444(3), PSYCH 445(3), PSYCH 470(3), PSYCH 471(3), PSYCH 473(3), PSYCH 476(3), PSYCH 477(3), PSYCH 481(3), PSYCH 482(3), PSYCH 484(3), PSYCH 485(3) (Sem: 2-8)
6. Capstone Experience: PSYCH 439(3), PSYCH 490(3), PSYCH 493(3-6), PSYCH 494(3-18), PSYCH 495(6-15), PSYCH 496(3-18) (Sem: 7-8)

Select 12 credits of additional Psychology courses from any offered for a total of 30 credits of Psychology courses beyond PSYCH 100 and PSYCH 301 (Sem: 2-8)

**[1]** A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Last Revised by the Department: Spring Semester 2012

Blue Sheet Item #: 40-05-071

Review Date: 02/21/2012

UCA Revision #1: 9/1/06

AL



# Psychology

*Altoona College (PSCBS)*

*University College (PYSCC) - Penn State Beaver, Penn State Brandywine, Penn State Fayette, Penn State Greater Allegheny, Penn State Hazleton, Penn State Lehigh Valley, Penn State Mont Alto, Penn State New Kensington, Penn State Schuylkill, Penn State Worthington Scranton, Penn State York*

The Psychology major will combine the knowledge, skills, and values of psychology with a liberal arts foundation. Students should develop a knowledge base consisting of concepts, theory, empirical findings, and trends within psychology; understand and apply basic research methods in psychology; use critical thinking and the scientific approach to solve problems related to behavior and mental processes; apply psychological principles to personal and social issues; and be able to understand the gender, sexual orientation, race, ethnicity, culture, and class issues in psychological theory, research, and practice. Students should also develop information and computer competence, communication skills, and develop realistic ideas about how to implement their psychology education in occupational pursuits in a variety of settings. The major may lead to either a Bachelor of Arts or a Bachelor of Science degree. The B.A. degree incorporates a broad exposure to the many facets of the field of psychology, in addition to the B.A. requirements. The B.S. degree provides the same exposure to the field of psychology and adds options in Science and Business to prepare students for more specific career directions. Students in both degree programs may also prepare for graduate school; research experience with faculty members is encouraged for such students.

For the B.S. degree in Psychology, a minimum of 124 credits is required.

*Scheduling Recommendation by Semester Standing given like (Sem: 1-2)*

**GENERAL EDUCATION:** 45 credits

(0-4 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)

(See description of General Education in this bulletin.)

**FIRST-YEAR SEMINAR:**

(Included in ELECTIVES or GENERAL EDUCATION course selection)

**UNITED STATES CULTURES AND INTERNATIONAL CULTURES:**

(Included in ELECTIVES, GENERAL EDUCATION course selection, or REQUIREMENTS FOR THE MAJOR)

**WRITING ACROSS THE CURRICULUM:**

(Included in REQUIREMENTS FOR THE MAJOR)

**ELECTIVES:** 14-18 credits

**REQUIREMENTS FOR THE MAJOR:** 65 credits **[1]**

(This includes 0-4 credits of General Education GQ courses.)

**COMMON REQUIREMENTS FOR THE MAJOR (ALL OPTIONS):** 41 credits

**PRESCRIBED COURSES** (7 credits)

PSYCH 100 GS(3) (Sem: 1-4)

PSYCH 301(4) (Sem: 3-6)

**ADDITIONAL COURSES** (34 credits)

(Must include 15 credits at the 400-level.)

Select 4 credits from PSYCH 200 GQ(4) or STAT 200 GQ(4) (Sem: 3-4)

Select 18 credits--a minimum of 3 credits from each of the following six categories:

1. Learning and Cognition: PSYCH 256 GS(3), PSYCH 261 GS(3), PSYCH 268(3), PSYCH 426(3), PSYCH 427(3), PSYCH 452(3), PSYCH 456(3), PSYCH 457(3), PSYCH 458(3), PSYCH 459(3), PSYCH 461(3) (Sem: 2-8)
2. Social and Personality Psychology: PSYCH 221 GS(3), PSYCH 231 GS;US(3), PSYCH 232 GS;US;IL(3), PSYCH 238 GS(3), PSYCH 419(3), PSYCH 420(3), PSYCH 421(3), PSYCH 423(3), PSYCH 424(3), PSYCH 432 US(3), PSYCH 438(3), PSYCH 479 US(3) (Sem: 2-8)
3. Biological Bases of Behavior: PSYCH 253 GS(3), PSYCH 260(3), PSYCH 269(3), PSYCH 441(3), PSYCH 460(3), PSYCH 462(3), PSYCH 463(3), PSYCH 464(3), PSYCH 475(3), PSYCH 478(3) (Sem: 2-8)
4. Developmental Psychology: PSYCH 212 GS(3), PSYCH 410(3), PSYCH 412(3), PSYCH 413(3), PSYCH 414(3), PSYCH 415(3), PSYCH 416(3)/HDFS 445(3), PSYCH 474(3) (Sem: 2-8)
5. Applied and Clinical Psychology: PSYCH 243 GS(3), PSYCH 244 GS(3), PSYCH 270(3), PSYCH 281 GS(3), PSYCH 370 US(3), PSYCH 404(3), PSYCH 408(3), PSYCH 443(3), PSYCH 444(3), PSYCH 445(3), PSYCH 470(3), PSYCH 471(3), PSYCH 473(3), PSYCH 476(3), PSYCH 477(3), PSYCH 481(3), PSYCH 482(3), PSYCH 484(3), PSYCH 485(3) (Sem: 2-8)
6. Capstone Experience: PSYCH 439(3), PSYCH 490(3), PSYCH 493(3-6), PSYCH 494(3-18), PSYCH 495(6-15), PSYCH 496(3-18) (Sem: 7-8)

Select 12 credits of additional Psychology courses from any offered for a total of 30 credits of Psychology courses beyond PSYCH 100 and PSYCH 301 (Sem: 2-8)

**REQUIREMENTS FOR THE OPTION: 24 credits**

**SCIENCE OPTION: (24 credits)**

**ADDITIONAL COURSES (15 credits)**

Select 15 credits from: ANTH 21 GN(3); ANTH 22 GN(3); BBH 101 GHA(3) any BIOL course; any CHEM course; any MICRB course; any PHYS course (Sem: 2-8)

**SUPPORTING COURSES (9 credits)**

Select 6 credits in natural sciences/quantification from department list (Sem: 2-8)

Select 3 credits in social and behavioral sciences from department list (Sem: 2-8)

**BUSINESS OPTION: (24 credits)**

**ADDITIONAL COURSES (15 credits)**

Select 15 credits from: Any ACCTG course; BA 100 GS(3); BA 241(2), BA 242(2) or BA 243(4); Any ECON course; any FIN course; any HPA courses; any IB course; any MGMT course; any MKTG course; any SCM except 200 (Sem: 2-8)

**SUPPORTING COURSES (9 credits)**

Select 6 credits in natural sciences/quantification from department list (MATH 22 or MATH 110 recommended) (Sem: 2-8)

Select 3 credits in social and behavioral sciences from department list (Sem: 2-8)

**[1]** A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Last Revised by the Department: Spring Semester 2012

Blue Sheet Item #: 40-05-072

Review Date: 02/21/2012



## Rehabilitation and Human Services

*Penn State Abington (RHSAB)*

*Penn State Berks (RHSBL)*

*University College: Penn State Hazleton, Penn State Lehigh Valley, Penn State Wilkes-Barre (RHSCC)*

*University Park, College of Education (RHS)*

PROFESSOR JAMES HERBERT, *Undergraduate Program Coordinator*

This major helps prepare students for entry-level positions in a variety of human service settings, particularly settings that provide services to persons with physical, emotional, or mental disabilities. Graduates pursue employment in a variety of settings including rehabilitation centers, drug and alcohol programs, senior citizens centers, community mental health programs, mental retardation programs, corrections systems, and hospitals. Increasing opportunities are available in private for-profit insurance programs for the industrially injured, and in employee assistance programs within business and industry. Well-planned use of electives and internships allows for specialization. The full-semester (15-credit) internship is provided under the supervision of professionals in human service agencies. These intensive "hands-on" experiences are frequently avenues for employment since the internship is completed during the senior year. Students may not go on internship until they have successfully completed all other course work. Students are encouraged to participate in volunteer experiences that provide opportunities to work with people with disabilities. Students are encouraged to declare a minor in a related area and should be discussed with the student's adviser. The major also helps prepare students for graduate study in many human service professional disciplines such as rehabilitation counseling, school counseling, occupational therapy, physical therapy and social work.

Baccalaureate degree candidates must have a minimum 2.0 GPA to be admitted to the Rehabilitation and Human Services (RHS) major; thereafter, students must earn a C or better in all RHS required courses.

For the B.S. degree in Rehabilitation and Human Services, a minimum of 120 credits is required.

*Scheduling Recommendation by Semester Standing given like (Sem: 1-2)*

**GENERAL EDUCATION:** 45 credits

(12-14 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)

(See description of General Education in this bulletin.)

**FIRST-YEAR SEMINAR:**

(Included in ELECTIVES or GENERAL EDUCATION course selection)

**UNITED STATES CULTURES AND INTERNATIONAL CULTURES:**

(Included in ELECTIVES or GENERAL EDUCATION course selection)

**WRITING ACROSS THE CURRICULUM:**

(Included in REQUIREMENTS FOR THE MAJOR)

**ELECTIVES:** 17-20 credits

**REQUIREMENTS FOR THE MAJOR: 70-72 credits**

(This includes 12-14 credits of General Education courses: 6 credits of GS courses; 3-4 credits of GQ courses; 3-4 credits of GN courses.)

**PRESCRIBED COURSES (55 credits)**

PSYCH 100 GS(3), RHS 100 GS;US(3) (Sem: 1-4)

PSYCH 270(3), SOC 1 GS(3), SOC 119(4) (Sem: 1-6)

RHS 300(3)[1], RHS 301(3)[1], RHS 302(3)[1], RHS 303(3)[1], RHS 400(3)[1], RHS 401(3)[1], RHS 402(3)[1], RHS 403(3)[1], RHS 495A(15) (Sem: 5-8)

**ADDITIONAL COURSES (9-11 credits)**

EDPSY 10 GS(3), HDFS 239 GS(3), or PSYCH 212 GS(3) (Sem: 1-2)

Select 3-4 credits from ANTH 21 GN(3), BISC 1 GN(3), BISC 2 GN(3), BISC 3 GN(3), BISC 4 GN(3), BIOL 133 GN(3), BIOL 110 GN(4), or BIOL 141 GN(3) (Sem: 1-6)

STAT 100 GQ(3) or STAT 200 GQ(4) or EDPSY 101 GQ(3) (Sem: 1-6)

**SUPPORTING AND RELATED COURSES (6 credits)**

Select 6 credits from CRIM, BBH, HDFS, KINES, PSYCH, or SOC (Sem: 3-8)

[1] A student enrolled in this major must receive a grade of C or better in this course, as specified in Senate Policy 82-44.

Last Revised by the Department: Spring Semester 2013

Blue Sheet Item #: 41-05-082

Review Date: 02/19/2013

UCA Revision #1: 9/1/06

PIC updated: 2/13/12

ED

## Associate Degrees

# Business Administration

*Abington College (2BAAB)*

*Altoona College (2BAAL)*

*Berks College (2BABL)*

*Capital College (2BACA)*

*University College (2BACC): Penn State Brandywine, Penn State DuBois, Penn State Fayette, Penn State Greater Allegheny, Penn State Hazleton, Penn State Mont Alto, Penn State New Kensington, Penn State Lehigh Valley, Penn State Schuylkill, Penn State Shenango, Penn State Wilkes-Barre, Penn State Worthington Scranton, Penn State York*

*University College (2BACC): Via World Campus*

Not all options are available at every campus. Contact the campus you are interested in attending to determine which options are offered.

The associate degree program in Business Administration provides an introductory foundation to core aspects of the business environment that prepares graduates for future baccalaureate study in business or for direct entry into the work place. The primary objective of this major is to provide a business-oriented program with sufficient communicative and mathematical skills, socially relevant course work, and specific

business specialties to develop a well-rounded and knowledgeable graduate.

Students should work closely with academic advisers to schedule course work required to transition to baccalaureate business programs.

**ENTRANCE REQUIREMENTS:** Students must have a minimum 2.0 GPA to change to this Associate degree after admission to the University.

For the Associate in Science degree in Business Administration, a minimum of 60 credits is required.

*Scheduling Recommendation by Semester Standing given like (Sem: 1-2)*

**GENERAL EDUCATION:** 21 credits

(9 credits of these 21 credits are included in the REQUIREMENTS FOR THE MAJOR)  
(See description of General Education in this bulletin.)

**REQUIREMENTS FOR THE MAJOR:** 48-50 credits

(This includes 3 credits of GQ General Education courses and 6 credits of GWS General Education courses.)

**PRESCRIBED COURSES** (13 credits)

CAS 100 GWS(3) (Sem: 2-4)

ACCTG 211(4), ENGL 202D GWS(3)**[1]**, MIS 204(3) (Sem: 2-4)

**ADDITIONAL COURSES** (23-24 credits)

ENGL 15 GWS(3)**[1]** or ENGL 30 GWS(3)**[1]** (Sem: 1-2)

MATH 21 GQ(3), MATH 22 GQ(3), or MATH 110 GQ(4) (Sem: 1-2)

BA 243(4) or BA 241(2) and BA 242(2) (Sem: 1-4)

ECON 102 GS(3) or ECON 104 GS(3) (Sem: 1-4)

MGMT 301(3)**[1]** or MGMT 301W(3)**[1]** (Sem: 3-4)

MKTG 301(3)**[1]** or MKTG 301W(3)**[1]** (Sem: 3-4)

SCM 200 GQ(4) or STAT 200 GQ(4) (Sem: 3-4)

**SUPPORTING COURSES AND RELATED AREAS** (12-13)

Select 12-13 credits from: BA 100(3); BA 250(3); BA 364(3); CAS 250(3) or CAS 252(3); CAS 352(3); MATH 22 GQ(3); MATH 110 GQ(4); ACCTG 300 to 399(3); ECON 100 to ECON 399(3); ENTR 100 to 399(3); FIN 100 to 399(3); HPA 100 to 399(3); IB 303 IL(3); LER 100 to 399(3); MGMT 100 to 399(3); MKTG 100 to 399(3); MIS 100 to 399(3); RM 100 to 399(3); or SCM 200 to 399(3) (Sem: 1-4)

**[1]** A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Last Revised by the Department: Spring Semester 2017

Blue Sheet Item #: 45-04-001

Review Date: 1/10/17

UCA Revision #1: 8/9/06

UCA Revision #2: 7/26/07

UC

## Information Sciences and Technology

*Berks College (2ISBL)*

*Continuing Education, University Park (2 IST)*

*University College: Penn State DuBois, Penn State Great Allegheny, Penn State Hazleton, Penn State Lehigh Valley, Penn State Mont Alto, Penn State New Kensington, Penn State Wilkes-Barre, Penn State Worthington Scranton, Penn State York (2ISCC)  
World Campus*

Not all options are available at every campus. Contact the campus you are interested in attending to determine which options are offered.

PROFESSOR MARY BETH ROSSON, *Associate Dean for Graduate and Undergraduate Studies*

This associate degree major is structured to prepare graduates for immediate and continuing employment opportunities in the broad disciplines of information science and technology. This includes positions such as application programmers, associate systems designers, network managers, Web designers and administrators, or information systems support specialists. Specifically, the major is designed to ensure a thorough knowledge of information systems and includes extensive practice using contemporary technologies in the creation, organization, storage, analysis, evaluation, communication, and transmission of information. The major fosters communications, interpersonal, and group interaction skills through appropriate collaborative and active learning projects and experiences. Technical material covers the structure of database systems, Web and multi-media systems, and considerations in the design of information systems. Team projects in most courses, a required internship, and a second-year capstone experience provide additional, focused venues for involving students in the cutting-edge issues and technologies in the field.

The Associate of Science in IST degree will be offered at multiple campuses within the Penn State system of colleges and campuses. Note that not all options will be available at all locations.

**Baccalaureate Option:** This option provides maximum articulation with the baccalaureate degree. Students who complete this option will meet all lower division requirements for the baccalaureate degree. This is not the case with the remaining options, although the degree of articulation is quite high for all associate degree options.

**Generalized Business Option:** This option enables students to specialize in the general business areas of accounting, marketing, and management.

**Individualized Option:** This option enables students to work closely with an adviser to develop a plan of study that meets the dual objectives of allowing a flexible academic program and providing breadth of technical specialization. An example would be a program where a student would take some of the courses listed in the Web Administration option and the remainder in the Software option.

**Software Option:** This option prepares graduates for entry-level programming support positions in industry. Students take courses in Web programming, database programming, and other contemporary programming environments.

**Networking Option:** This option prepares graduates for positions as entry-level computer network administrators. Students take courses in personal computer hardware, networking essentials, and network administration.

**Telecommunications Option:** This option prepares graduates for entry-level positions in the telecommunications industry. Students take courses in voice and data communications, protocols, networks, and wireless systems.

**ENTRANCE REQUIREMENTS:** Students must have a minimum 2.0 GPA to change to this Associate degree after admission to the University.

For the Associate in Science degree in IST, a minimum of 60 credits is required.

*Scheduling Recommendation by Semester Standing given like (Sem: 1-2)*

**GENERAL EDUCATION:** 21 credits

(9-12 of these 21 credits are included in the REQUIREMENTS FOR THE MAJOR)  
(See the description of General Education in this bulletin.)

**ELECTIVES:** 4-7 credits

**REQUIREMENTS FOR THE MAJOR:** 44-46 credits

(This includes 9-12 credits of General Education courses, i.e., ALL options: 3 credits of GQ courses; 6 credits of GWS courses. The Baccalaureate Option also includes 3 credits of GS courses to equal a total of 12 credits that double count; the General Business Option also includes 0-3 credits of GS courses to equal 9-12 credits that double count.)

**COMMON REQUIREMENTS FOR THE MAJOR (ALL OPTIONS):** 29 credits

**PRESCRIBED COURSES** (25 credits)

CMPSC 101 GQ(3)[1] (Sem: 1-2)

CAS 100B GWS(3), IST 110 GS(3)[1], IST 111S(1)[1], IST 210(3)[1], IST 220(3)[1], IST 250(3)[1], ENGL 015 GWS(3) (Sem: 1-2)

IST 260(3)[1] (Sem: 3-4)

**ADDITIONAL COURSES** (4 credits)

ENGL 202C GWS(3) or ENGL 202D GWS(3) (Sem: 3-4)

IST 295A(1)[1] or IST 295B(1)[1] (Sem: 3-4)

**REQUIREMENTS FOR THE OPTION:** 15-17 credits

**BACCALAUREATE OPTION:** (17 credits)

**PRESCRIBED COURSES** (13 credits)

IST 230(3)[1] and IST 240(3)[1] (Sem: 3-4)

ECON 102 GS(3) (Sem: 3-4)

STAT 200 GQ(4) (Sem: 3-4)

**ADDITIONAL COURSES** (4 credits)

MATH 110 GQ(4) or MATH 140 GQ(4) (Sem: 1-2)

**GENERALIZED BUSINESS OPTION:** (15-16 credits)

**ADDITIONAL COURSES** (15-16 credits)

Select 15 credits in consultation with the adviser from the following list: (Sem:1-4)

ACCTG 151(3), ACCTG 152(3), ACCTG 153(3), ACCTG 160(3), ACCTG 170(3), ACCTG 211(4), BA 250(3), MKTG 220(3), MKTG 221(3), MKTG 310(3), MKTG 327(3), MGMT 100(3), MGMT 150(3), MGMT 321(3), MGMT 341(3)

ECON 102 GS(3), ECON 104 GS(3), or ECON 014 GS(3)

MATH 017 GQ(3), MATH 021 GQ(3), MATH 022 GQ(3), or MATH 026 GQ(3)

**INDIVIDUALIZED OPTION:** (15 credits)

**SUPPORTING COURSES AND RELATED AREAS** (15 credits)

Select 15 credits in consultation with an adviser that follow a coherent theme in information sciences and technology with a grade of C or better required for all IST[1] courses. (Sem: 1-4)

**SOFTWARE OPTION:** (15 credits)

**PRESCRIBED COURSES** (12 credits)

CMPSC 302(3) (Sem: 2-4)  
IST 211(3)[1], IST 247(3)[1], and IST 256(3)[1] (Sem: 3-4)

**ADDITIONAL COURSES** (3 credits)  
MATH 017 GQ(3), MATH 021 GQ(3), MATH 022 GQ(3), or MATH 026 GQ(3) (Sem: 1-2)

**NETWORKING OPTION:** (15 credits)

**PRESCRIBED COURSES** (12 credits)  
IST 225(3)[1], IST 226(3)[1], IST 227(3)[1], and IST 228(3)[1] (Sem: 3-4)

**ADDITIONAL COURSES** (3 credits)  
MATH 017 GQ(3), MATH 021 GQ(3), MATH 022 GQ(3), or MATH 026 GQ(3) (Sem: 1-2)

**TELECOMMUNICATIONS OPTION:** (15 credits)

**PRESCRIBED COURSES** (12 credits)  
IST 221(3)[1], IST 222(3)[1], IST 223(3)[1], and IST 224(3)[1] (Sem: 3-4)

**ADDITIONAL COURSES** (3 credits)  
MATH 017 GQ(3), MATH 021 GQ(3), MATH 022 GQ(3), or MATH 026 GQ(3) (Sem: 1-2)

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Last Revised by the Department: Spring Semester 2017

Blue Sheet Item #: 45-04-069A

Review Date: 1/10/2017

UCA Revision #2: 7/27/07

IS

## Minors

### Civic and Community Engagement Minor

*College of the Liberal Arts (CIVCM)*

*University Park - Rosa Eberly, [rae2@psu.edu](mailto:rae2@psu.edu) (Coordinator of the program)*

*Penn State Abington - Gary Calore, [gsc1@psu.edu](mailto:gsc1@psu.edu)*

*Penn State Brandywine - Lynn Hartle, [Ich1@psu.edu](mailto:Ich1@psu.edu)*

*Penn State Erie - Dawn Blasko, [dqb6@psu.edu](mailto:dqb6@psu.edu)*

*Penn State Greater Allegheny - Michael Vicaro, [mpv2@psu.edu](mailto:mpv2@psu.edu)*

*Penn State Beaver - JoAnn Chirico, [jxc64@psu.edu](mailto:jxc64@psu.edu)*

*Penn State Lehigh Valley - Mary Hutchinson, [mcl6@psu.edu](mailto:mcl6@psu.edu)*

*Penn State Schuylkill - Elinor Madigan, [emm17@psu.edu](mailto:emm17@psu.edu)*

*Penn State Mont Alto - Jacqueline Schwab, [sen@psu.edu](mailto:sen@psu.edu)*

*Penn State Berks - Laurie Grobman, [leg8@psu.edu](mailto:leg8@psu.edu)*

Administered by a program faculty drawn from across the University, the Intercollege Minor in Civic and Community Engagement is appropriate to undergraduate students seeking to apply domains of knowledge from their majors or General Education programs

to issues of consequence beyond the classroom. In the minor students integrate democratic, professional, and creative development. In particular, the minor serves to encourage, recognize, and systematize student participation in public service or problem-based fieldwork and research that:

is substantial, sustained, and includes structured opportunities for student reflection and critical assessment; and

is integrated with and supported by traditional, classroom-based course work.

Specifically, the minor consists of a balanced program of fieldwork experience and supporting course work that is selected with the advice and consent of a minor adviser and approved on behalf of the minor by a program faculty. Fieldwork experiences are selected from a list of eligible courses (or approved comparable alternatives), and supporting course work includes a conceptual foundations course that provides students with a critical orientation to contemporary issues and themes in public scholarship. The minor culminates with an approved capstone project, which may be a significant paper, or annotated portfolio, or other demonstration of substantial assessment and integration of the minor experience and the broader issue of application of academic theory and practice in the civic community.

The Civic and Community Engagement Minor Committee is authorized to award a minor certificate to any undergraduate who, in addition to satisfying the degree requirements of his or her baccalaureate major, satisfies the requirements for the Civic and Community Engagement Minor. The completion of the minor is reflected by a formal notation of the student's official record at the time of graduation. To enter the program, a student must submit an application to the committee. Applicants to the minor in Civic and Community Engagement:

Must have a minimum overall GPA of 2.0.

Must present a proposed plan of study in the application process. The plan of study should include student's contact information and GPA, a brief statement of student's learning objectives in connection with the major or other proposed curricular concentration, such as minor or general education, proposed supporting courses (include description of course and syllabus if available), proposed fieldwork courses (include information about fieldwork, supervision, and reflection and assessment), and minor adviser endorsement of the plan. Minor proposals must be approved by the student's minor adviser and the committee.

May apply no more than 9 credits toward the minor that also count toward the major. Students with multiple majors may have some additional flexibility. Past fieldwork experiences and completed courses may be retroactively included in the plan of study, but must be approved by the minor adviser and the committee.

A grade of C or better is required for all courses in the minor.

*Scheduling Recommendation by Semester Standing given like (Sem: 1-2)*

**REQUIREMENTS FOR THE MINOR:** 18 credits

**PRESCRIBED COURSES** (3 credits)

CIVCM 211 GS(3) (Sem: 5)

**SUPPORTING COURSES AND RELATED AREAS** (15 credits)

*at least 6 credits must be taken at the 400 level*

Select 6-9 credits from Program List of public scholarship courses, of which at least 3 credits involve supervised field experience and of which 3-6 credits are public issues and democracy courses, or equivalents chosen in consultation with minor adviser (Sem: 5-8)

Select 3-6 credits in related areas in consultation with minor adviser (Sem: 5-8)

Select 3 credits of public scholarship capstone work at the 400 level in consultation with minor adviser (Sem: 7-8)

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Blue Sheet Item #: 35-04-233

Review Date: 1/16/07

UE

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The University reserves the right to change the requirements and regulations listed here and to determine whether a student has satisfactorily met its requirements for admission or graduation, and to reject any applicant for any reason the University determines to be material to the applicant's qualifications to pursue higher education. Nothing in this material should be considered a guarantee that completion of a program and graduation from the University will result in employment.

The University Faculty Senate has responsibility for and authority over all academic information contained in the Undergraduate Bulletin.