Penn State New Kensington

Penn State New Kensington, on 72 wooded acres, serves the regions of the Greater Pittsburgh area and counties in southwestern Pennsylvania. The campus has ten major buildings, including the multi-purpose Conference Center, the 350-seat Forum Theatre, the 600-seat Field House, and an art gallery. Most students are commuters.

The campus serves a diverse population of students, both traditional and adult, who are from Pennsylvania, the United States, and other countries. Students can participate in sports teams for varsity, intramural, and club sports. Extracurricular clubs and organizations are available to serve the interests of students. The campus also has strong ties with the surrounding communities.

Penn State New Kensington offers baccalaureate and associate degree programs, as well as the first two years of more than 160 Penn State baccalaureate programs. Students can begin their education at New Kensington and move on to the University Park campus or other appropriate Penn State campus in order to complete their degree. Penn State New Kensington also offers a master’s degree program in conjunction with Penn State Harrisburg. Check the links along the side for available academic programs.

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.

8/8/14

Baccalaureate Degrees
Administration of Justice

University College (AJSCC): Penn State Beaver, Penn State DuBois, Penn State Fayette, Penn State Greater Allegheny, Penn State Hazleton, Penn State New Kensington, Penn State Schuylkill, Penn State Shenango, Penn State Wilkes-Barre

The Bachelor of Science degree is intended to prepare students for careers in the administration of justice. Two emphases are provided: (1) for students interested in entry-level employment in justice agencies; (2) for students interested in academic or research positions and who may seek graduate education before beginning employment.

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

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

GENERAL EDUCATION: 45 credits
(4-7 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 ELECTIVES, GENERAL EDUCATION course selection, or REQUIREMENTS FOR THE MAJOR)

ELECTIVES: 14-18 credits

REQUIREMENTS FOR THE MAJOR: 64-65 credits[1]
(This includes 4-7 credits of General Education courses; 0-3 credits of GH courses; 4 credits of GQ courses.)

PRESCRIBED COURSES (13 credits)
CRIMJ 012 GS(3), CRIMJ 100(3), CRIMJ 221(3), STAT 200 GQ(4) (Sem: 3-4)

ADDITIONAL COURSES (39-40 credits)
(Some of the courses in this category may have prerequisites that are not included in the major.)
Select 3-4 credits in values and ethics from B A 243(4) or B A 241(2) and B A 242(2), CRIMJ 465(3), PHIL 003 GH(3), PHIL 103 GH(3), PHIL 105 GH(3), PHIL 106 GH(3), or PHIL/S T S 107 GH(3), S T S 100 GH(3), S T S 101 GH(3) or S T S/PHIL 107 GH(3) (Sem: 5-6)
Select 3 credits from CRIMJ 451 US(3) or CRIMJ 453 US(3) (Sem: 5-8)
Select 15 credits -- emphasis a or b:
a. Field Research emphasis: CRIMJ 240W(4), CRIMJ 290(1-3), CRIMJ 494(5), CRIMJ 495(5)

**SUPPORTING COURSES AND RELATED AREAS** (12 credits)
Select 12 credits, in consultation with adviser, from University-wide offerings according to student’s career plan (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 2011

Blue Sheet Item #: 40-04-100

Review Date: 01/10/2012

UCA Revision #2: 7/26/07

**FINANCIAL SERVICES OPTION CURRENTLY ON HOLD at PENN STATE Brandywine; NOT ACCEPTING NEW STUDENTS**
**Begin Date of Enrollment Hold: October 16, 2013**

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**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)
B A 321(3)[1], B A 322(3)[1], B A 420(1)[1], FIN 301(3)[1], MGMT 301(3)[1], MKTG 301(3)[1], SCM 301(3)[1] (Sem: 5-6)
I B 303 IL(3)[1] (Sem: 5-8)
B A 421(3)[1], B A 422W(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)
B A 243(4) or B A 241(2) and B A 242(2) (Sem: 3-4)
Select 3 or 6 credits from B A 495A(3 or 6)[1], B A 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, B A, ECON, ENTR, FIN, FINSV, H P A, I B, MGMT, MIS, MKTG, R M, 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, B A, ECON, ENTR, FIN, FINSV, H P A, I B, MGMT, MIS, MKTG, R M, 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)
H P A 101(3) (Sem: 5-6)
H P A 332(3) (Sem: 5-8)

ADDITIONAL COURSES (0-3 credits)
Select 0-3 credits from BB H 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 H PA courses (Sem: 5-8)
Select 0-6 credits of 300-400-level courses from ACCTG, B A, ECON, ENTR, FIN, FINSV, H PA, I B, MGMT, MKTG, MIS, R M 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: B A 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.

Communications

University College (COMCC): Penn State Beaver, Penn State Brandywine, Penn State Greater Allegheny, Penn State New Kensington

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

With the rapid development of digital technologies over the last decade, the field of communications has seen unprecedented growth and convergence of medium in media both technologically and structurally. The communications degree program addresses strongly articulated employer requirements for the workplace through an integrated program model. The degree provides the basic theoretical foundations of the discipline, allows for appropriate branching outside the traditional curriculum, and permits a drawing from appropriate courses in the disciplines of information sciences and technology, communications, arts and sciences, English, and business.

The degree in communications provides two options for students who wish to develop their written and verbal skills in an effort to gain professional employment in fields such as public relations, publishing, speech writing, video and multimedia, production, and/or journalism.

CORPORATE COMMUNICATIONS OPTION: In extending traditional organizational communication and public relations to the digital age, this option prepares public
relations specialists to compete in a global society. The program is also effective as preparation for e-commerce.

**JOURNALISM OPTION:** In today's workplace, journalism graduates are required to regularly engage rapidly converging media in their work. This option offers graduates a competitive advantage by complementing traditional options (newspaper, magazine, radio, TV) with convergent course work designed to prepare students for professional journalism in the digital age.

For a B.A. degree in Communications, a minimum of 120 credits is required.

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

**GENERAL EDUCATION:** 45 credits
(6-10 credits of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)
(See description of General Education in this bulletin.)

**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:** 4-9 credits

**BACHELOR OF ARTS DEGREE REQUIREMENTS:** 24 credits
(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:** 52-53 credits
(This includes 6-10 credits of General Education courses: 0-6 credits of GS; 0-6 credits of GH; 0-4 credits GQ courses.)

**COMMON REQUIREMENTS FOR THE MAJOR (ALL OPTIONS):** 25 credits

**PRESCRIBED COURSES** (13 credits)[1]
COMM 160(1) (Sem: 1-2)
COMM 260W(3), COMM 270(3) (Sem: 3-4)
COMM 494(3), COMM 495(3) (Sem: 7-8)

**ADDITIONAL COURSES** (12 credits)
COMM 100 GS(3) or COMM 110 GH(3) (Sem: 1-2)[1]
Select 3 credits from the following (may double count with general education courses):
AM ST 105 GH;US(3), ECON 102GS(3), ECON 104 GS(3), PHIL 103 GH(3), PSYCH 100 GS(3),
SOC 001 GS(3), SOC 005 GS(3) (Sem: 1-2)
CAS 201 GH[3][1] or CAS 202 GS[3][1] (Sem: 3-4)
Select 3 credits from the following in Communications Research Methods/Theory (may not double count with option additional courses requirement): CAS 204(3), COMM 304(3),
CAS 352(3), CAS 471 US;IL(3) (Sem: 5-6)

**REQUIREMENTS FOR THE OPTION:** 27-28 credits

**CORPORATE COMMUNICATIONS OPTION:** (27-28 credits)

**PRESCRIBED COURSES** (9 credits)[1]
CAS 252(3) (Sem: 3-4)
COMM 370(3) (Sem: 5-6)
COMM 471(3) (Sem: 7-8)

ADDITIONAL COURSES (18-19 credits)[1]
(Some courses in this category have prerequisites that are not required in the program. Credits applied may not double count with any other major or option requirements. Only 3 credits combined maximum or COMM 001, 002, 003 may apply. Only 3 credits maximum of COMM 297 may apply. Only 3 additional credits of COMM 495 may apply. STAT 200 may double count as GQ. Courses may double count toward IL and US requirements.)
MKTG 301(3) or MKTG 301W(3) (Sem: 5-6)
Select 15 credits from the following (at least 3 credits must be at the 400 level):
B A 100 GS(3) or B A 243(4); CAS 203 GS(3), CAS 204(3), CAS 214W(3), CAS 271 US;IL(3),
CAS 352(3), CAS 404(3), CAS 452W(3), CAS 471 US;IL(3), COMM 001(1-3), COMM
002(1-3), COMM 003(1-3), COMM 205 US(3), COMM 241(3), COMM 251(3), COMM
282(3), COMM 292 GH(3), COMM 297(1-9), COMM 304(3), COMM 320(3), COMM 350
IL(3), COMM 403(3), COMM 409(3), COMM 410 IL(3), COMM 413W(3), COMM 462(3),
COMM 468(3), COMM 473(3), COMM 476(3), COMM 495(3), COMM 496(3), ENGL 215(3),
ENGL 420(3), MKTG 310(3), STAT 200 GQ(4) (Sem: 5-8)

JOURNALISM OPTION: (27-28 credits)

PRESCRIBED COURSES (12 credits)[1]
COMM 403(3), COMM 409(3), COMM 460W(3), ENGL 420(3) (Sem: 5-8)

ADDITIONAL COURSES (15-16 credits)[1]
(Some courses in this category have prerequisites that are not required in the program. Credits applied may not double count with any other major or option requirements. Only 6 credits combined maximum of COMM 001, 002, 003, may apply. Only 6 credits maximum of COMM 297 may apply. Only 3 additional credits of COMM 495 may apply. STAT 200 may double count as GQ. Courses may double count toward IL and US requirements.)
Select 15 credits from the following: CAS 203 GS(3), CAS 271 US;IL(3), CAS 404(3), CAS
471 US;IL(3), COMM 001(1), COMM 002(2-3), COMM 003(3), COMM 205 US(3), COMM
COMM 297(3), COMM 350(3), COMM 370, COMM 401(3), COMM 410 IL(3), COMM
413W(3), COMM 461(3), COMM 462(3), COMM 464(3), COMM 464W(3), COMM 467(3),
COMM 468(3), COMM 470A(3), COMM 470B(3), COMM 470C(3), COMM 476(3), COMM
495(3), COMM 496(3), ENGL 215(3), STAT 200 GQ(4) (Sem: 3-8)

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

Last Reviewed by the Department: Summer Session 2011
Blue Sheet Item #:40-01-087
Review Date: 8/16/2011
UCA Revision #1: 8/3/06
UC

Electro-Mechanical Engineering Technology
Altoona College
The Electro-Mechanical Engineering Technology (B.S. EMET) degree program provides the basic undergraduate education required for a career as an electro-mechanical engineering technologist. The program emphasizes a breadth of knowledge in all fields of engineering technology related to typical, highly-automated manufacturing, production, or assembly plant processes. Basic coverage is provided in all major areas to technology involved in the operation and control of manufacturing and production processes, including instrumentation and monitoring methods, principles of machine design, automated control techniques, thermal and fluid sciences, computerized manufacturing systems, principles of electrical and electronic circuit operation, computer-aided drafting and design, economics of production, and statistical analysis and quality control.

The primary aim of the EMET program is to provide graduates with the knowledge and skills necessary to apply current methods and technology to the development, design, operation, and management of electro-mechanical systems, particularly in those industries where automated systems are prevalent.

Program Educational Objectives:
Specific educational objectives of the program expect that graduates of the program, within five years of graduation will be:

1. Capable of and actively involved in the specification, procurement, or integration of electromechanical systems
2. Capable of and actively involved in the operation, testing, or maintenance of electromechanical systems
3. Capable of and actively participating in project team activities
4. Capable of and actively involved in the preparation and delivery of technical documentation and communication

Program Outcomes (Student Outcomes):
At graduation, EMET students should have:

a) An ability to select and apply the knowledge, techniques, skills, and modern tools of their disciplines to broadly-defined engineering technology activities,
b) An ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies,
c) An ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes,
d) An ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives,
e) An ability to function effectively as a member or leader on a technical team,
f) An ability to identify, analyze, and solve broadly-defined engineering technology problems,
g) An ability to communicate effectively regarding broadly-defined engineering technology activities,
h) An understanding of the need for and an ability to engage in self-directed continuing professional development,
i) An understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity,
j) A knowledge of the impact of engineering technology solutions in a societal and global context, and
k) A commitment to quality, timeliness, and continuous improvement.

In addition, EMET graduates must demonstrate the knowledge and technical competency to:

a) Use computer-aided drafting or design tools to prepare graphical representations of electromechanical systems.
b) Use circuit analysis, analog and digital electronics, basic instrumentation, and computers to aid in the characterization, analysis, and troubleshooting of electromechanical systems.
c) Use statics, dynamics (or applied mechanics), strength of materials, engineering materials, engineering standards and manufacturing processes to aid in the characterization, analysis, and troubleshooting of electromechanical systems.
d) Use appropriate computer programming languages for operating electromechanical systems.
e) Use electrical/electronic devices such as amplifiers, motors, relays, power systems, and computer and instrumentation systems for applied design, operation, or troubleshooting electromechanical systems.
f) Use advanced topics in engineering mechanics, engineering materials, and fluid mechanics for applied design, operation, or troubleshooting of electromechanical systems.
g) Use basic knowledge of control systems for the applied design, operation, or troubleshooting of electromechanical systems.
h) Use differential and integral calculus, as a minimum, to characterize the static and dynamic performance of electromechanical systems.
i) Use appropriate management techniques in the investigation, analysis, and design of electromechanical systems.

The major is organized as a four-year baccalaureate program with the corresponding Penn State admission requirements. Graduates of an associate degree in either electrical or mechanical engineering technology from Penn State may re-enroll in the EMET program. The College of Engineering ENGR students may enroll through "Change of Major" procedures. Students from an engineering technology program at another institution or community college accredited by TAC of ABET may transfer into the program with advanced standing.

For the B.S. degree in Electro-Mechanical Engineering Technology, a minimum of 130 credits is required. This program is accredited at Penn State Altoona, Penn State Berks, Penn State New Kensington, and Penn State York of the University College by the Engineering Technology Accreditation Commission of ABET, www.abet.org.

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

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

FIRST-YEAR EXPERIENCE:
(Satisfied by the FYE program at the campus at which the student is enrolled in the EMET program)
UNITED STATES CULTURES AND INTERNATIONAL CULTURES:
(Included in GENERAL EDUCATION course selection)

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

REQUIREMENTS FOR THE MAJOR: 109-114 credits
(This includes 24 credits of General Education courses: 6 credits of GQ courses; 9 credits of GN courses; 6 credits of GWS courses; 3 credits of GH or GS courses.)

PRESCRIBED COURSES (73 credits)
CMPET 117(3)[1], CMPET 120(1)[1], EDSGN 100(3), EET 105(3), IET 101(3), MCH T 111(3)[1] (Sem: 1-2)
EET 114(4)[1], EET 118(1)[1], EET 275(3), EG T 114(2), EMET 222(4)[1], ENGL 202C GWS(3), IET 215(2), IET 216(2), MCH T 214(1)[1] (Sem: 3-4)
CMPET 211(3), EET 212W(4)[1], EMET 230(3)[1], EMET 325(3), EMET 326(3), EMET 330(3)[1], EMET 350(3) (Sem: 5-6)
EMET 403(1), EMET 405(3), EMET 410(4), EMET 440(3), IET 333(2) (Sem: 7-8)

ADDITIONAL COURSES (27-31 credits)
Select 5-6 credits from MATH 040 GQ(5)[1]; or [MATH 022 GQ(3)[1] and MATH 026 GQ(3)[1]; or [MATH 081 GQ(3)[1] and MATH 082 GQ(3)[1] * (Sem: 1-2)
Select 3 credits of GH or GS from: S T S 200 GS(3), S T S 233 GH(3), or S T S 245 GS;IL(3) (Sem: 2-8)
CAS 100A GWS(3) or CAS 100B GWS(3) (Sem: 3-4)
Select 4 credits from MATH 083 GQ(4)[1]** or MATH 140 GQ(4)[1] (Sem: 3-4)
Select 3-4 credits from MATH 210 GQ(3)[1] or MATH 141 GQ(4)[1] (Sem: 3-4)
Select 3 credits from MATH 211 GQ(3)[1] or MATH 250(3)** (Sem: 4-5)
Select 6-8 credits of GN courses from two of the following groups: PHYS 150 GN(3) or PHYS 211 GN(4) or PHYS 250 GN(4); PHYS 151 GN(3) or PHYS 212 GN(4) or PHYS 251 GN(4); CHEM 110 GN(3) and CHEM 111 GN(1) (Sem: 4-6)

SUPPORTING COURSES AND RELATED AREAS (9-10 credits)
Select 3-4 credits of science courses, in consultation with an adviser, from the approved department list (Sem: 4-6)
Select 6 credits of General Technical Elective courses, in consultation with an adviser, from the approved department list (Sem: 7-8)

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.
*students taking MATH 081 GQ(3) and MATH 082 GQ(3) must take MATH 083 GQ(4)
**students taking MATH 083(4) must take MATH 210(3) and MATH 211(3)
***Note that MATH 250 does not carry a C-requirement

Last Revised by the Department: Fall Semester 2012
Blue Sheet Item #: 41-03-047
Review Date: 11/13/2012
UCA Revision #1: 8/3/06 UCA Revision #2: 7/27/07
Comments
EN
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

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 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.

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[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 440W(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 014 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 (Sem: 5-8) [3]

**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 (Sem: 5-8) [3]

**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 (Sem: 5-8) [3]

[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.

[3] Students must take at least one supporting course at the 400-level and not more than two supporting courses at the 100-level.

Last Revised by the Department: Fall Semester 2014

Blue Sheet Item #: 43-03-088

Review Date: 11/18/2014

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**Nursing**

Altoona College
Penn State Abington
Penn State Erie, The Behrend College
Penn State Harrisburg
University College: Penn State Fayette, Penn State Mont Alto, Penn State New Kensington,
Penn State Schuylkill, Penn State Shenango, Penn State Worthington Scranton
University Park, School of Nursing (NURN)
World Campus
PROFESSOR PAULA MILONE-NUZZO, Dean, College of Nursing

This major prepares registered nurse students as professional practitioners in areas of health promotion and maintenance, illness care, and rehabilitation. The major in Nursing is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road NE, Suite 8500, Atlanta, GA 30326 (404-975-5000), [www.acenursing.org](http://www.acenursing.org) and the Commission on Collegiate Nursing Education (CCNE), One DuPont Circle, NW Suite 530, Washington, DC 20036 (202-463-6930). Part-time or full-time study is available at any of the campus sites. The University Park site is a blended program, which includes resident instruction and online nursing courses. The World Campus site is completely online.

Senate legislation 42-97 Credit by Portfolio Assessment enables students to receive credit for certain prescribed nursing courses based on their RN licensure.

Students must meet all requirements of the clinical institutions that provide preceptors and clinical experiences. These requirements may include CPR certification, professional liability insurance, health examination, drug testing, criminal background check (State and Federal) and child abuse history clearances. Students also are responsible for their own transportation to and from clinical settings and may need the use of a car.

Graduates of this major may qualify for admission to a graduate nursing program.

For the B.S. degree in Nursing, a minimum of 120 credits is required.

_Scheduling Recommendation by Semester Standing given like (Sem: 1-2)_

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

**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:** 3-5 credits

**REQUIREMENTS FOR THE MAJOR:** 91-93 credits[1]  
(This includes 21 credits of General Education courses: 3 credits of GHA courses; 9 credits of GN courses; 3 credits of GQ courses; 6 credits of GS courses.)

**PRESCRIBED COURSES** (76 credits)  
BIOL 129 GN(4), BIOL 141 GN(3), BIOL 142(1), HD FS 129 GS(3), MICRB 106 GN(3), MICRB 107 GN(1), NUTR 251 GHA(3), PSYCH 100 GS(3) (Sem: 1-4)  
NURS 200W(3)[38], NURS 251(3)[38], NURS 357(3)[38], NURS 390 US(3)[38] (Sem: 3-4)  
NURS 225(3)[37], NURS 230(4)[37], NURS 250 US(2)[37], NURS 301(4)[37], NURS 305(3)[37], NURS 306(3)[37], NURS 310(3)[37], NURS 320(3)[37], NURS 405B(4)[37], NURS 420(4)[37], NURS 417 US;IL(4)[38], NURS 465(3)[38], NURS 475(3)[38] (Sem: 5-6)  
NURS 417 US;IL(4)[38], NURS 465(3)[38], NURS 475(3)[38] (Sem: 7-8)

**ADDITIONAL COURSES** (9-11 credits)  
CHEM 101 GN(3); or CHEM 110 GN(3) and CHEM 111 GN(1) (Sem: 1-4)  
SOC 001 GS(3) or SOC 005 GS(3) (Sem: 1-4)  
STAT 200 GQ(4) or STAT 250 GQ(3) (Sem: 1-4)

**SUPPORTING COURSES AND RELATED AREAS** (6 credits)
Select 6 credits from courses on school-approved list in consultation with adviser (3 credits of which must be at the 400 level)

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.
[37] Credit by Portfolio Assessment
[38] Due to restricted enrollment, the School of Nursing assigns the semester in which students enroll in these courses and all course prerequisites must be successfully completed.

Last Revised by the Department: Summer Session 2010

Blue Sheet Item #: 38-05-061

Review Date: 02/23/2010

UCA Revision #1: 8/9/06

HH

Updated contact info for ACEN accrediting agency: 7/31/13

Organizational Leadership

Berks College
University College: Penn State New Kensington - PROGRAM CURRENTLY ON HOLD at PENN STATE New Kensington; NOT ACCEPTING NEW STUDENTS
Begin date of Enrollment Hold: Fall Semester 2015
University Park, College of the Liberal Arts (OL BS): offered via World Campus

PROFESSOR DENNIS GOURAN, Professor-in-charge

The degree draws on many of the disciplines of the liberal arts, as well as business and science, to illuminate the issues that all leaders face regarding work and employment issues in the 21st Century, as well as in other aspects of organizational life more generally. Students select courses in crime, law, and justice, economics, political science, sociology, labor and employment relations, communication arts and sciences, statistics, management, and psychology. The goal is to provide a broad education that introduces methods of analysis used in the disciplines of the liberal arts and prepares students to understand the complex social, cultural, and organizational issues that they will confront in leadership positions in the modern world. Upon successful completion of the B.S. degree in Organizational Leadership, students should be better able to:

1. Understand the roles and the major functions of leadership in contemporary organizations;
2. Articulate the theoretical and empirical foundations for different approaches to the exercise of leadership;
3. Detect, accurately frame, and select appropriate strategies for overcoming obstacles to effective organizational performance that leaders face;
4. Exhibit intellectual and behavioral competencies useful in the successful execution of critical organizational tasks and the management of relationships;
5. Recognize the internal structures of organizations and their impact on members’ performance;
6. Appreciate the social processes operative in the exercise of influence, as well as how to improve them;
7. Draw on their knowledge of leadership in transitioning from lower-level to
higher-level positions of responsibility and authority in organizations;
8. Bring a global perspective to the exercise of leadership; and
9. Grasp the importance of enacting leadership responsibly and in an ethically
defensible manner.

For the B.S. degree in Organizational Leadership, a minimum of 123 credits is required.

**GENERAL EDUCATION:** 45 credits
(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 REQUIREMENTS FOR THE MAJOR)

**WRITING ACROSS THE CURRICULUM:**
(Included in ELECTIVES, GENERAL EDUCATION course selections, or REQUIREMENTS FOR
THE MAJOR)

**ELECTIVES:** 18 credits

**REQUIREMENTS FOR THE MAJOR:** 64-66 credits[1]
(This includes 4 credits of General Education GQ courses.)

**PRESCRIBED COURSES** (34 credits)
CAS 352(3), ECON 102 GS(3), ECON 104 GS(3), OLEAD 100 GS(3), OLEAD 409(3), OLEAD
464(3), OLEAD 465(3), PHIL 010 GH(3), PSYCH 100 GH(3), PSYCH 281 GS(3), STAT 200
GQ(4) (Sem: 1-5)

**ADDITIONAL COURSES** (12-13 credits)
Choose one course from each area.

1. Conflict Management
   CAS 404(3) or LER 437(3) (Sem: 5-8)
2. Research Methods
   LER 312(4) or SOC 207(3) (Sem: 5-8)
3. Motivation
   MGMT 321(3) or PSYCH 484(3) (Sem: 5-8)
4. Ethics
   LER 460(3) or PHIL 119 GH(3) (Sem: 5-8)

**SUPPORTING COURSES AND RELATED AREAS** (18-19 credits)
At least 15 credits must be at the 400-level.
(Courses that are used in the Additional Courses category may not be double-counted to
satisfy this requirement.)

CAS 404(3), CAS 452(3), CAS 475(3), CRIM 100 GS(3), CRIM 113 US(3), CRIM 482(3), LER
100 GS(3), LER 136 US(3), LER 201 GS(3), LER 312(4), LER 400 IL(3), LER 434(3), LER
404(3), SOC 455(3), SOC 456(3) (Sem: 3-8)

[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 2012

Blue Sheet Item #: 41-04-065
Project and Supply Chain Management

Penn State Erie, The Behrend College (PSCM)
Penn State Harrisburg, Capital College (PSMCA)
University College: Penn State Beaver, Penn State Fayette, Penn State Greater Allegheny, Penn State New Kensington, and Penn State Shenango

The Project and Supply Chain Management major concentrates on developing knowledge, skills, and abilities in both project and supply chain management, dynamic and important disciplines in modern corporations. Project management skills include the development of new projects, and coordinating procurement and project delivery systems. Supply chain management emphasizes the integration of manufacturing and service operations, logistics, purchasing, and distribution that enable organizations to develop value-creating supply chain networks. The major provides students with an opportunity to develop the quantitative and people skills necessary to design and operate today’s complex management systems. Students learn how to manage critical components in organizational supply chains, and apply business analytic methods for organizing and fully integrating supply chain practices throughout the organization.

Graduates are uniquely well-prepared for careers in some of the highest in-demand professions in the modern business and government environments, managing the supply chain and project initiatives in world-class business firms, public sector organizations, construction, IT organizations, third-party logistics providers, and goods and services distribution operations.

Entry to Major Requirements:
Entry to the Management major requires the completion of 5 entry-to-major courses:
ACCTG 211(4); ECON 102 GS(3); ENGL 015 GWS(3) or ENGL 030 GWS(3); MATH 110 GQ(4) or MATH 140 GQ(4); STAT 200 GQ(4) or SCM 200(4), and a 2.00 or higher cumulative grade-point average.

For the B.S. degree in Project and Supply Chain Management, a minimum of 120 credits is required. 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 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 REQUIREMENTS FOR THE MAJOR)

WRITING ACROSS THE CURRICULUM:
(Included in REQUIREMENTS FOR THE MAJOR)
ELECTIVES: 2 credits

REQUIREMENTS FOR THE MAJOR: 88 credits
(This includes 15 credits of General Education courses: 6 credits of GQ courses; 6 credits of GS courses; 3 credits of GWS courses.)

PRESCRIBED COURSES (43 credits)
ACCTG 211(4), ECON 102 GS(3), ECON 104 GS(3), ENGL 202D GWS(3) (Sem: 3-4)
FIN 301(3)[1], MGMT 301(3)[1], MIS 204(3), MKTG 301(3)[1], SCM 301(3)[1] (Sem: 3-6)
MGMT 341(3)[1], MGMT 410(3)[1] (Sem: 5-6)
MGMT 418(3)[1], SCM 445(3)[1], SCM 460(3)[1] (Sem: 6-8)

ADDITIONAL COURSES (33 credits)
MATH 110 GQ(4) or MATH 140 GQ(4) (Sem: 1-2)
SCM 200 GQ(4) or STAT 200 GQ(4) (Sem: 3-4)
BA 241(2) and BA 242(2); or BA 243(4) (Sem: 3-6)
Select 3 credits from BA 364Y(3)[1], ECON 470(3)[1], FIN 471(3)[1], MGMT 461 IL(3)[1],
MKTG 445 IL(3)[1], or other 400-level international business courses[1] (Sem: 5-8)
Select 6 credits of 300- or 400-level courses in one business supporting area or PSCM electives from MGMT 420(3)[1], MGMT 431(3)[1], MGMT 432(3)[1], MGMT 433(3)[1],
MGMT 440(3)[1], MGMT 453(3)[1], MGMT 466(3)[1], or MGMT 483(3)[1] (Sem: 5-8)
Select 3 credits from ECON 481(3)[1] or MIS 336(3)[1] or MIS 390(3)[1] (Sem: 6-8)
MGMT 415(3)[1] or SCM 416(3)[1] (Sem: 6-8)
SCM 320(3)[1] or SCM 455(3)[1] (Sem: 6-8)
BA 462(3)[1] or MGMT 471W(3)[1] (Sem: 7-8)

SUPPORTING COURSES AND RELATED AREAS (12 credits)
Select 12 credits of approved electives courses from any area (see school list of suggested courses) (See the admission section in the general information section in this bulletin for the placement policy for Penn State foreign language courses.) (Sem: 1-8)

[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 2014

Blue Sheet Item #: 43-02-015

Review Date: 10/7/2014

UCA Revision #1: 8/8/06
UCA Revision #2: 7/27/07

BD

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 New Kensington, 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[1]
(This includes 0-4 credits of General Education GQ courses.)

**PRESCRIBED COURSES** (7 credits)
PSYCH 100 GS(3) (Sem: 1-4)
PSYCH 301W(4) (Sem: 3-6)

**ADDITIONAL COURSES** (34 credits)
(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

441(3), PSYCH 460(3), PSYCH 462(3), PSYCH 463(3), PSYCH 464(3), PSYCH 475(3), PSYCH 478(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 301W (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 New Kensington, 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 301W(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:

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 301W (Sem: 2-8)

REQUIREMENTS FOR THE OPTION: 24 credits

SCIENCE OPTION: (24 credits)

ADDITIONAL COURSES (15 credits)
Select 15 credits from: ANTH 021 GN(3); ANTH 022 GN(3); BB H 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; B A 100 GS(3); B A 241(2), B A 242(2) or B A 243(4); Any ECON course; any FIN course; any H P A courses; any I B 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 022 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
UCA Revision #1: 8/31/06

**Associate Degrees**

**Biomedical Engineering Technology**

*University College: Penn State New Kensington (2 BET)*

**PROFESSOR MYRON HARTMAN, Program Coordinator, Penn State New Kensington**
**PROFESSOR IVAN E. ESPARRAGOZA, Director of Engineering Technology and Commonwealth Engineering, Penn State Brandywine**
**PROFESSOR SVEN BILÉN, Head, School of Engineering Design, Technology, and Professional Programs, Penn State University Park**

The medical community has grown to depend on medical devices and systems to diagnose, treat and monitor patients in health care. These medical devices have become very complex systems, as they are becoming microprocessor controlled, PC based, and networked to share information. Biomedical Equipment Technicians (BETs) are specialized individuals who are educated and trained on the methods of: physiological measurement; equipment application and operation; safety, performance and preventive maintenance testing; calibration; problem solving; and troubleshooting. In addition, BETs may be involved in equipment and technology management programs, selection and installation of medical equipment, manufacturer and FDA recalls of medical devices, quality improvement programs, and training programs for hospital personnel in the safe and proper use of medical equipment. The classroom and laboratory portions of this major focus on electronically and PC based medical devices for patient monitoring and life-support equipment. The student is exposed to a much broader spectrum of medical
equipment through a 400-hour (ten-week) practical internship in an approved health care facility.

Program Educational Objectives

The BET major prepares graduates who, during the first few years of professional practice, will be able to:

1. Understand the use, application, operation, corrective actions, installations, acceptance testing and preventive maintenance (PMs) inspections on a wide range of medical devices.
2. Securing employment in the medical equipment maintenance profession, attempt professional certification or advance to a higher level of education.
3. Have an awareness, understanding and application of applicable standards, regulations, and quality improvement plans regarding medical equipment support.
4. Communicate effectively with co-workers, clinical professionals and other healthcare related professionals by functioning effectively on committees and by independent work.

Program Outcomes (Student Outcomes)

The BET program outcomes are as follows:

a) Understand use, application, operation, installation, acceptance testing, preventive maintenance, performance assurance and safety inspections (PMs) on select medical devices.
b) Understand and apply a fundamental knowledge of electrical and electronic engineering technology fundamentals, components, circuits and networking fundamentals.
c) Apply basic mathematical and scientific principles to identify, analyze and solve technical problems.
d) Awareness and understand of diversity, professional and ethical responsibilities, applicable standards and regulations regarding medical equipment support.
e) Work with fellow technicians, clinical professionals and other related professionals by functioning effectively on teams and by independent work.
f) Communicate effectively with fellow technicians, clinical professionals and other related professionals.
g) Recognize and understand the need for continued professional development, including formal and informal study.
h) Recognize, observe and participate when possible in quality improvement programs, timeless and commitment to continuous improvement that support medical equipment and systems.
i) The application of circuit analysis and design, analog and digital electronics, microcomputers, bioengineering systems, and safety in the building, testing, operation, and maintenance of biomedical equipment.
j) The applications of physics, chemistry, and biological sciences to building, testing, operation, and maintenance of biomedical equipment in a rigorous mathematical environment at or above the level of algebra and trigonometry.

Students completing the 2 BET degree need only complete several additional courses to obtain the Associate in Engineering Technology degree in Electrical Engineering Technology. Graduates of the program may qualify for admission to the baccalaureate degree major in Electrical Engineering Technology offered at Penn State Harrisburg, Electrical and Computer Engineering Technology offered at Penn State Erie, and Electro-Mechanical Engineering Technology offered at Penn State Altoona, Berks, New Kensington and York.
For the Associate in Engineering Technology degree in Biomedical Engineering Technology, a minimum of 71 credits is required. This program is accredited by the Engineering Technology Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

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

**GENERAL EDUCATION:** 21 credits
(12 of these 21 credits are included in the REQUIREMENTS FOR THE MAJOR) (See description of General Education in front of Bulletin.)

**REQUIREMENTS FOR THE MAJOR:** 62-63 credits
(This includes 12 credits of General Education courses: 3 credits of GN courses; 3 credits of GQ courses; 6 credits of GWS courses.)

**PRESCRIBED COURSES** (47 credits)
BE T 101(1), CHEM 101 GN(3), EET 105(3), CMPET 117(3), CMPET 120(1), ENGL 015 GWS(3), IST 110 GS(3)[1], IST 220(3) (Sem: 1-2)
BE T 201(5)[1], BE T 204W(5)[1], BE T 205(4)[1], CAS 100 GWS(3), PHYS 150 GN(3), RADSC 230(3) (Sem: 3-4)
BE T 203 (4)[1][2] (Sem: 5)

**ADDITIONAL COURSE** (15-16 credits)
MATH 022 GQ(3) and MATH 026 GQ(3) or MATH 040 GQ(5) (Sem: 1-2)
BE T 202(4)[1] or BE T 206(4)[1] (Sem: 3-4)
BI SC 004 GN(3) or BIOL 141 GN(3) (Sem: 3-4)
Select 3 credits from the following technical courses: BE T 210(3), BE T 296(1-18), BE T 297(1-9), BIOL 129 GN(4), CMPET 211(3), CMPSC 101 GQ(3), EDSGN 100(3), EET 213W(5), EET 297(1-3), EG T 201(2) or MCH T 111(3) (Sem: 3-4)

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.
[2] BE T 203(4) Internship must be the last course taken for the degree.

Last Revised by the Department: Fall Semester 2011

Blue Sheet Item #: 40-04-026

Review Date: 01/10/2012

UCA Revision #1: 8/2/06
UCA Revision #2: 7/26/07

**Comments**

EN

**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 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 a foundation in business that, through two options, prepares graduates for either entrance to the Bachelor of Science in Business (BSB) programs 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.

The General Business Option provides an introductory foundation to core aspects of the business environment while also preparing students for future transfer into the Bachelor of Science in Business (BSB).

The Professional Studies Option provides a technically oriented program that prepares students for direct entry into the work force. Because some of the course work in this option is not accepted in baccalaureate business programs, students are encouraged to work closely with faculty and staff advisers.

Students who plan to continue into BSB should meet with their advisers regarding entrance to major and other related requirements.

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.)

COMMON REQUIREMENTS FOR THE MAJOR (ALL OPTIONS): 30-31 credits

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 (17-18 credits)
ENGL 015 GWS(3)[1] or ENGL 030 GWS(3)[1] (Sem: 1-2)
MATH 021 GQ(3), MATH 022 GQ(3), or MATH 110 GQ(4) (Sem: 1-2) [74]
B A 243(4)[1] or B A 241(2)[1] and B A 242(2)[1] (Sem: 1-4)
ECON 102 GS(3) or ECON 104 GS(3) (Sem: 1-4)
SCM 200 GQ(4) or STAT 200 GQ(4) (Sem: 2-4)

REQUIREMENTS FOR THE OPTION: 18-19 credits
(Both options may not be available at every campus.)

GENERAL BUSINESS OPTION: (18-19 credits)

ADDITIONAL COURSES (18-19 credits )
a) Select 3 credits from MGMT 301(3)[1] or MGMT 301W(3)[1] (Sem: 3-4)
b) Select 3 credits from MKTG 301(3)[1] or MKTG 301W(3)[1] (Sem: 3-4)
c) Select 12-13 credits from B A 250(3); CAS 250(3) or CAS 252(3); LER 100 GS(3) or LER
PROFESSIONAL STUDIES OPTION: (18 credits) [75]

ADDITIONAL COURSES (18 credits)
Select 18 credits from ACCTG 151(3), ACCTG 152(3), ACCTG 153(3), ACCTG 160(3), BA 100 GS(3), B A 250(3); ECON 102 GS(3) or ECON 104 GS(3); CMPSC 109(3), FIN 100(3), FIN 108(3), H P A 101(3), IST 110 GS(3), IST 210(3), IST 220(3), IST 250(3), LER 100 GS(3), LER 136 US(3); MGMT 100(3) or MGMT 100W(3); MGMT 150(3), MIS 103(3), MIS 106(1-6); MIS 190(3), MKTG 220(3); MKTG 221(3) or MKTG 221W(3); RM 100(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.
[74] Students should work closely with academic advisers to ensure the completion of any and all course work required for entrance to BSB.
[75] This Option is designed for students planning to enter the work force directly upon graduation. Some courses included in this option will not transfer into baccalaureate business programs. Students are encouraged to work closely with their advisers.

Last Revised by the Department: Fall Semester 2007

Blue Sheet Item #: 35-06-534
Review Date: 4/10/07
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 Fayette, Penn State Hazleton, Penn State Lehigh Valley, Penn State Mont Alto, Penn State New Kensington, Penn State Shenango, 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.

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 260W(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)
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: Fall Semester 2014
Letters, Arts, and Sciences

Abington College (2LAAB)
Altoona College (2LAAL)
Penn State Erie, The Behrend College (2LABC)
Berks College (2LABL)
Penn State Harrisburg (2LACA)
University College (2LACC): Penn State Beaver, Penn State Brandywine, Penn State DuBois, Penn State Fayette, Penn State Hazleton, Penn State Mont Alto, Penn State New Kensington, Penn State Schuylkill, Penn State Shenango Valley, Penn State Wilkes-Barre, Penn State Worthington-Scranton
University Park, College of the Liberal Arts (2 LAS)
World Campus

ASSOCIATE DEAN CHRISTOPHER P. LONG, in charge, Penn State University Park

The objectives of the Letters, Arts, and Sciences major are to broaden the student's understanding, interests, and skills; to help the student become a more responsible, productive member of the family and community; and to offer a degree program with sufficient electives to permit some specialization according to the student's interests or career plans. Letters, Arts, and Sciences is a complete two-year degree major. However, graduates who later seek admission to baccalaureate degree majors may apply baccalaureate credits toward the new degree.

In addition to a wide variety of baccalaureate majors offered at University Park campus, graduates of the Letters, Arts, and Sciences major may qualify for admission to the baccalaureate degree majors in Behavioral Sciences, Elementary Education, Humanities, or Public Policy offered at Penn State Harrisburg. Or they may qualify for any of a large number of baccalaureate degree majors offered by Penn State Erie, The Behrend College, in business, the liberal arts, and sciences.

For the Associate in Arts degree in Letters, Arts, and Sciences, a minimum of 60 credits is required.

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

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

ELECTIVES: 15 credits

REQUIREMENTS FOR THE MAJOR: 30 credits#1
(This includes 6 credits of General Education GWS courses.)

PRESCRIBED COURSES (6 credits)
ENGL 015 GWS(3) (Sem: 1-2)
CAS 100 GWS(3) (Sem: 3-4)

ADDITIONAL COURSE (3 credits)
ENGL 202A GWS(3), ENGL 202B GWS(3), ENGL 202C GWS(3), or ENGL 202D GWS(3) (Sem: 3-4)

SUPPORTING COURSES AND RELATED AREAS (21 credits)
Select 3 credits in any course designated as arts* (Sem: 1-4)
Select 3 credits in any course designated as humanities* (Sem: 1-4)
Select 3 credits in any course designated as social and behavioral sciences* (Sem: 1-4)
Select 3 credits in any course designated as physical, biological, or earth sciences* (Sem: 1-4)
Select 9 credits in any one of the following areas*: arts, humanities, social and behavioral sciences, natural sciences and quantification, and foreign language skills. (If foreign language courses are chosen, it is recommended that these courses be in one foreign language sequence.) (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.

The required credits of General Education and Requirements for the Major must be baccalaureate-level courses. For students intending to seek admission to a baccalaureate program upon graduation, it is recommended that most, if not all, of the courses be at the baccalaureate level. For those students who will seek a bachelor of arts degree upon graduation from Letters, Arts, and Sciences, it is strongly recommended that a foreign language be taken since admission to a bachelor of arts program in the College of the Liberal Arts requires one college-level course, or the equivalent, in a foreign language.

*Courses that will satisfy the arts, humanities, social and behavioral sciences, natural sciences, and quantification requirements are defined on the Letters, Arts, and Sciences checksheet, which may be obtained from the College of the Liberal Arts associate dean for undergraduate studies at the University Park campus or from any Letters, Arts, and Sciences representative at other locations.

Last Revised by the Department: Summer Session 1988

Blue Sheet Item #: 16-10-044

Review Date: 10/8/02

Reviewed by Publications: 06/23/06

LA

Radiological Sciences

University College: Penn State New Kensington (2RSCC), Penn State Schuylkill (2RSCC)

For students interested in pursuing an education in the paramedical field of radiography (radiologic technology), the radiological sciences major meets the educational and clinical requirements for the graduate to function as an entry-level radiographer. Required course work is divided into three interrelated areas including general education, radiography specific, and clinical education components. During the clinical education component, students perform radiographic exams under the directed supervision of certified radiographers at multiple area clinical education settings. The clinical component emphasizes the concepts of team practice and patient-centered care. Both the
radiography-specific course work and the clinical component are structured sequentially over six or seven consecutive semesters, commencing each fall semester. Upon successful completion of the 72-credit associate degree, the graduate will be eligible to attempt the American Registry of Radiologic Technologists (ARRT) examination for certification.

For the Associate in Science degree in Radiological Sciences, a minimum of 72 credits is required.

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

**GENERAL EDUCATION:** 21 credits  
(15 of these 21 credits are included in the REQUIREMENTS FOR THE MAJOR)  
(See description of General Education in this bulletin.)

**REQUIREMENTS FOR THE MAJOR:** 66 credits  
(This includes 15 credits of General Education courses: 3 credits of GH courses; 3 credits of GN courses; 3 credits of GQ courses; 3 credits of GS; 3 credits of GWS courses.)

**PRESCRIBED COURSES** (59 credits)
BIOL 129 GN(4)[1], RADSC 101(4)[1], RADSC 110(3)[1] (Sem: 1)  
BIOL 141 GN(3), ENGL 015 GWS(3), IST 110 GS(3), MATH 021 GQ(3), PHIL 103 GH(3),  
RADSC 102(4)[1], RADSC 103(3)[1], RADSC 204(3)[1], RADSC 205(3)[1], RADSC 210W(3)[1], RADSC 220(3)[1], RADSC 295B(1)[1], RADSC 295D(1)[1], RADSC 230(3)[1]  
(Sem: 1-5)  
RADSC 206(3)[1], RADSC 240(2)[1] (Sem: 5-6)  
RADSC 207(4)[1] (Sem: 6-7)

**ADDITIONAL COURSES** (7 credits)[1]
At Penn State New Kensington:  
Take 7 credits from RADSC 295A(1.5), RADSC 295C(2), RADCSC 295E(1.5), RADSC 495F(2)  
(Sem: 1-6)

OR

At Penn State Schulykill:  
Take 7 credits from RADSC 295A(1), RADSC 295C(1), RADCSC 295E(2), RADSC 495G(1),  
RADSC 295I(2) (Sem: 1-7)

[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 2014

Blue Sheet Item #: 43-03-176  
Review Date: 11/18/2014  
CL/UC

**Minors**

**Business Minor**

University College via World Campus

Contacts: Business Minor Contact at campuses offering the BSB major or University College at: sah43@psu.edu
The Business minor is a strong complement to virtually any major. Courses prescribed for the minor are taught by Penn State faculty providing courses to the B.S. in Business and the A.S. in Business Administration. It provides students with the opportunity to develop and apply skills appropriate to the business contexts of their chosen majors. Students pursuing the Business minor must complete thirteen credits of prescribed course work and six credits of additional course work. A grade of C or better is required for all courses in the minor. The prescribed thirteen credits of coursework presents students with a critical foundation of core business disciplines: accounting, management, marketing, and either macro- or micro-economics. The six credits of additional coursework must be taken at the 400-level.

The additional coursework enables students to expand on the core foundation in one of two ways. They may choose to solidify their business knowledge base by exploring six credits of 400-level business courses in the following disciplines: Accounting; Business Administration; Business Law; Energy Business and Finance; Economics; Entrepreneurship; Finance; Financial Services; Health Policy and Administration; International Business; Labor Studies and Employment Relations; Management Information Systems; Management; Marketing; Risk Management; Supply Chain Management; or Statistics. Alternately, students can augment three credits of 400-level coursework in one of the above listed business disciplines with three credits of 400-level work from an approved list of specific business-related course in disciplines such as Communication Arts and Sciences; Corporate Communication; Communications; Criminal Justice; Engineering; English; Human Development and Family Studies; History; Hospitality Management; Information Sciences and Technology; Kinesiology; Philosophy; Political Science; Psychology; Recreation, Park and Tourism Management; or Sociology.

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

REQUIREMENTS FOR THE MINOR: 19 credits

PRESCRIBED COURSES: (10 credits)
ACCTG 211(4) (Sem: 1-5)
MGMT 301(3), MKTG 301(3) (Sem: 5-8)

ADDITIONAL COURSES: (3 credits)
Select 3 credits from ECON 102 GS(3) or ECON 104 GS(3) (Sem: 1-5)

SUPPORTING COURSES AND RELATED AREAS: (6 credits)
Select 3-6 credits at the 400 level from:
ACCTG, B A, B LAW, E B F, ECON, ENTR, FIN, FINSV, H P A, I B, LER, MIS, MGMT, MKTG, R M, SCM, or STAT (Sem: 5-8)
Select 0-3 credits at the 400-level from:

Last Revised by the Department: Fall Semester 2014

Blue Sheet Item #: 43-03-174

Review Date: 11/18/2014

UCA Revision #1: 8/3/06
Comments
AB/BK/UC

English Minor (ENGL)

University Park, College of the Liberal Arts (ENGL)

Contact: Abington College, Tom Smith, trs8@psu.edu; Altoona College, Erin Murphy, ecm14@psu.edu; Penn State Brandywine, Adam Sorkin, ais2@psu.edu; Penn State Fayette, Danielle Mitchell, dmm52@psu.edu; Penn State Greater Allegheny, Mildred Mickle, mrm33@psu.edu; Penn State Mont Alto, Kevin Boon, kab25@psu.edu; Penn State Wilkes-Barre, Steven Putzel, sdp4@psu.edu; College of the Liberal Arts, Elizabeth Brown, eaf4@psu.edu; Penn State York, Dr. Jennifer Nesbitt, jpn12@psu.edu

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

For the minor in English a minimum of 18 credits are required.

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

REQUIREMENTS FOR THE MINOR: 18 credits

SUPPORTING COURSES AND RELATED AREAS: (18 credits)
Students may not count courses used to satisfy General Education Writing/Speaking Skills
Select 6 credits from ENGL 200-299 (Sem: 3-8)
Select 6 credits from ENGL 400-499 (Sem: 3-8)
Select 6 additional credits in English (Sem: 3-8)

Last Revised by the Department: Fall Semester 2015
Blue Sheet # 44-03-073
Review Date: 11/17/15

Information Sciences and Technology Minor

Abington College
Berkens College
Capital College
University College: Penn State Beaver, Penn State Brandywine, Penn State Greater Allegheny, Penn State Hazleton, Penn State Lehigh Valley, Penn State New Kensington, Penn State Schuylkill, Penn State Wilkes-Barre, Penn State Worthington Scranton, Penn State York, World Campus
University Park, College of Information Sciences and Technology (IST)

This minor 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 minor 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 the intent to expose
students to the cognitive, social, institutional, and global environments of Information Sciences and Technology and to then apply that knowledge as a supplement to their major.

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

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

**REQUIREMENTS FOR THE MINOR:** 18 credits

**PRESCRIBED COURSES** (9 credits)
IST 110 GS(3), IST 210(3), IST 220(3) (Sem: 1-6)

**ADDITIONAL COURSES** (9 credits)
Select 3 credits from IST 250(3), IST 301(3), or IST 302(3) (Sem: 5-8)
Select 6 credits from IST 402(3), IST 431(3), or IST 432(3) (Sem: 5-8)

Last Revised by the Department: Fall Semester 2014

Blue Sheet Item #: 43-03-085

Review Date: 11/18/2014

*IS*

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**Security and Risk Analysis Minor**

*Penn State Berks*

*University College: Penn State Beaver, Penn State Mont Alto, Penn State New Kensington, Penn State Worthington Scranton, World Campus*

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

The minor in Security and Risk Analysis (SRA) is intended to familiarize students with the general frameworks and multidisciplinary theories that define security and related risk analysis. Course work will engage students in the challenges and problems of assuring information confidentiality and integrity (e.g., social, economic, technology, and policy issues) as well as the strengths and weaknesses of various methods for assessing and mitigating associated risk in the students' major field.

The minor provides a grounding in analysis and modeling used in information search, visualization and creative problem solving. This knowledge is set in the context of legal, ethical and regulatory issues of security including analysis of privacy and security law, internal control standards, regulatory policies and basic investigative processes and principles. Such understanding overviews the information technology that plays a critical role in identifying, preventing and responding to security-related events in the student's major field.

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:** 21 credits[1]
(At least 6 credits must be at the 400 level.)

**PRESCRIBED COURSES** (15 credits)
IST 110 GS(3), SRA 111 GS(3), SRA 211(3), SRA 221(3) (Sem: 1-6)
IST 452(3) (Sem: 5-8)
SUPPORTING COURSES AND RELATED AREAS (6 credits)
Select 6 credits in consultation with the SRA Minor adviser from the following areas: Risk Management, Network Security, or Cyber Forensics. At least 3 credits must be at the 400 level. (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 2007
Blue Sheet Item #: 35-06-457
Review Date: 4/10/07

Technical Writing Minor (TEHWR)

Contact: College of the Liberal Arts, Elizabeth Brown, eaf4@psu.edu

The Department of English offers an 18-credit minor leading to a Technical Writing certificate to all students, regardless of major or college, who want to do concentrated work in technical writing.

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)
ENGL 418(3) (Sem: 5-8)

ADDITIONAL COURSES (12-15 credits)
(Some courses in this category may have prerequisites that are not required in the minor.)
Select 3-6 credits from CAS 452(3), ENGL 470(3), ENGL 471(3), ENGL 472(3), ENGL 473(3), ENGL 474(3), S T S 407(3) (Sem: 3-8)
Select 6-9 credits from ENGL 415(3), ENGL 416(3), ENGL 417(3), ENGL 421(3), ENGL 495(3) (Sem: 3-8)
Select 3-6 credits from GD 201(3), INSYS 412(3), INSYS 413(3), INSYS 441(3), PSYCH 444(3), PSYCH 456(3) (Sem: 3-8)

SUPPORTING COURSES AND RELATED AREAS (0-3 credits)
(Some courses in this category may have prerequisites that are not required in the minor.)
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