University Bulletin

Undergraduate Degree Programs

Penn State Hazleton

Penn State Hazleton, a 104-acre campus, has historic and modern buildings that stand side by side as well as a garden, a scenic overlook, and nature trails. The land, in Sugarloaf Township, had been the residence of local coal baron Eckley B. Markle before being purchased by Penn State in 1948. The name Highacres, as the campus is known, carried over from Markle's day.

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 Hazleton 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 Hazleton and move on to the University Park campus or other appropriate Penn State campus in order to complete their degree. Check the links along the side for available academic programs.

Baccalaureate Degrees

Applied Psychology

Berks College (APSYC)
University College (APSCC): Penn State Beaver,Penn State Lehigh Valley,Penn State Greater Allegheny, Penn State Hazleton, Penn State New Kensington

This major is designed for students who are interested in a liberal arts degree with a concentration in applied psychology. The program features both active and collaborative classroom experiences in addition to intensive internship experiences, and is most appropriate for students who wish to develop a set of applied scientific and human relations skills that will prepare them for entry-level employment in a wide range of government and private human service organizations and agencies, and in business and industry. Because of the flexible and broad nature of the degree, students might also use this major as a preparation for graduate or professional school in business, human services, law, or the social sciences.

This program differs most notably from traditional majors in psychology in three ways: 1) it is intended for students who may not be planning to pursue a doctoral degree in psychology that would prepare them for a career as a psychologist; 2) it requires that students learn and apply skills during 12 credits of internship experiences; 3) it requires that students demonstrate skill proficiency in a comprehensive assessment in order to graduate.

For the B.A. degree in Applied Psychology, a minimum of 127 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 or GENERAL EDUCATION course selection)

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

ELECTIVES: 8-24 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: 50 credits**[1](#mnote01)**
(This includes 0-4 credits of General Education GQ courses.)

PRESCRIBED COURSES (28 credits)
PSYCH 100 GS(3) (Sem: 1-2)
PSYCH 212 GS(3), PSYCH 296(1) (Sem: 1-4)
PSYCH 301W(4) (Sem: 3-6)
PSYCH 404/EDPSY 450(3), PSYCH 495(12) (Sem: 5-8)
PSYCH 496(2) (Sem: 7-8)

ADDITIONAL COURSES (16 credits)
PSYCH 200(4) or STAT 200 GQ(4) (Sem: 3-4)
Select 12 credits from the following groups, including a minimum of 3 credits from each category (a total of 9 credits must be at the 400 level):

1. Abnormal, Clinical, Personality:
   PSYCH 238 GS(3) (Sem: 3-6)
   PSYCH 470(3), PSYCH 479 US(3), PSYCH 481(3) (Sem: 5-8)
2. Developmental, Cognitive, Learning:
   ED PSY 014(3), PSYCH 256 GS(3), PSYCH 261 GS(3), PSYCH 412(3), PSYCH 415(3), PSYCH 456(3) (Sem: 3-6)
   PSYCH 416/HD FS 445(3) (Sem: 5-8)
3. Industrial/Organizational, Social, Interpersonal:
   PSYCH 221 GS(3), PSYCH 281 GS(3), PSYCH 420(3) (Sem: 3-8)
   PSYCH 423(3), PSYCH 424(3) (Sem: 5-8)
4. Health, Wellness, Adjustment:
   PSYCH 243 GS(3) (Sem: 3-6)
   PSYCH 441(3), PSYCH 471(3) (Sem: 5-8)

SUPPORTING COURSES AND RELATED AREAS (6 credits)
Select 3 credits of 200-level psychology in consultation with an adviser (Sem: 1-2)
Select 3 credits in consultation with an adviser (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 2003

Blue Sheet Item #: 31-04-017

Review Date: 1/14/03

UCA Revision #1: 8/14/06

BK-LV

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 Hazleton, Penn State Lehigh Valley, Penn State Mont Alto, Penn State Greater Allegheny, Penn State New Kensington, Penn State Schuylkill, Penn State Shenango, Penn State Wilkes-Barre, Penn State Worthington Scranton, Penn State York

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

The Bachelor of Science in Business (B.S.B.) is an upper-division, professionally oriented business degree for individuals who are seeking general preparation in business. The degree combines the theoretical underpinnings of core business disciplines, notably management, marketing, finance, and logistics, with applied study in a practical setting, especially the small-business climates across most of the Commonwealth. Through the choice of an 18-credit option, students develop a specialty related to a key business sector. Students also develop written and oral communication skills throughout the program, acquire contemporary computer skills, and engage in active and collaborative learning. The degree allows students throughout the Commonwealth to become familiar with the unique business environments of their local communities, a design that sets the degree apart from other business degrees offered both within the University and throughout the Commonwealth.

The associate degree in business administration at Penn State articulates with the degree. Advanced-standing students from other accredited colleges or universities will be admitted only with specified grade-point averages established annually in accordance with University policy.

ACCOUNTING OPTION: Preparation for positions in business with an emphasis on the areas of financial and managerial accounting, systems and controls, auditing, and taxation.

ENTREPRENEURSHIP OPTION (offered only at the Altoona College): Preparation for a variety of entrepreneurial careers from starting a new business venture to working as an entrepreneur within a larger organization.

FINANCIAL SERVICES OPTION: Preparation for positions in community financial organizations such as banks, real estate firms, insurance brokers, investment firms, and credit companies.

HEALTH SERVICES OPTION: Development of a background in the financial and administrative aspects of health care enterprises such as hospitals, managed-care organizations, clinical practices, and physicians' offices.

INDIVIDUALIZED BUSINESS OPTION: The selection of 18 credits of study based on an

individualized plan of study submitted by the student and approved by an adviser. The option allows the tailoring of a program of study to suit specific student needs.

MARKETING AND MANAGEMENT OPTION: 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 higher (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: 8-16 credits

REQUIREMENTS FOR THE MAJOR: 71-79 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): 53-61 credits

PRESCRIBED COURSES (32-37 credits)
ECON 002 GS(3) (Sem: 1-2)
ACCTG 211(4), ECON 004 GS(3), MIS 204(3) (Sem: 3-4)
B A 321(1-3)[1](#mnote01), B A 322(1-3)[1](#mnote01), B A 420(1)[1](#mnote01), FIN 301(3)[1](#mnote01), MGMT 301(3)[1](#mnote01), MKTG 301(3)[1](#mnote01), SCM 301(3)[1](#mnote01) (Sem: 5-6)
B A 421(1-2)[1](#mnote01), B A 422W(3)[1](#mnote01) (Sem: 7-8)

ADDITIONAL COURSES (21-24 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)
B A 323(3)[1](#mnote01) or I B 303 IL(3)[1](#mnote01) (Sem: 5-8)
Select 6-9 credits from B A 495A(3-9)[1](#mnote01), B A 495B(3-9)[1](#mnote01), or B A 495C(3-9)[1](#mnote01) (Sem: 7-8)

REQUIREMENTS FOR THE OPTION: 18 credits [1](#mnote01)
(Not all options are available at every campus.)

ACCOUNTING OPTION: (18 credits)

PRESCRIBED COURSES (15 credits)
ACCTG 404(3), ACCTG 432(3), ACCTG 471(3), ACCTG 472(3) (Sem: 5-6)
ACCTG 403W(3) (Sem: 7-8)

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

ENTREPRENEURSHIP OPTION:(18 credits)

PRESCRIBED COURSES (12 credits)
ENTR 300(3), ENTR 320(3) (Sem: 5-6)
ENTR 400(3), ENGL 419(3) (Sem: 7-8)

ADDITIONAL COURSES (6 credits)
ENTR 410(3), ENTR 420(3), ENTR 430(3), or ENTR 440(3) (Sem: 5-8)
CAS 250(3), CAS 252(3), or CAS 352(3) (Sem: 7-8)

FINANCIAL SERVICES OPTION: (18 credits)

PRESCRIBED COURSES (12 credits)
FINSV 400(3), FINSV 411(3), INS 301(3) (Sem: 5-8)
ENGL 419(3) (Sem: 7-8)

ADDITIONAL COURSES (6 credits)
ECON 351(3), FINSV 420(3), INS 310W(3), or R EST 301(3) (Sem: 5-8)
CAS 250(3), CAS 252(3), or CAS 352(3) (Sem: 5-8)

HEALTH SERVICES OPTION: (18 credits)

PRESCRIBED COURSES (12 credits)
H P A 101(3) (Sem: 5-6)
H P A 310(3), H P A 332(3) (Sem: 5-8)
ENGL 419(3) (Sem: 7-8)

ADDITIONAL COURSES (6 credits)
CAS 250(3), CAS 252(3), or CAS 352(3) (Sem: 5-8)
H P A 447(3) or H P A 455(3) (Sem: 7-8)

INDIVIDUALIZED BUSINESS OPTION: (18 credits)
Prepare an individualized plan of study consisting of 18 credits to be submitted for approval by an adviser. (Sem: 5-8)

MANAGEMENT AND MARKETING OPTION: (18 credits)

ADDITIONAL COURSES (18 credits)

1. Select 15 credits from the following (to include at least 3 credits in MGMT and 3 credits in MKTG and at least 3 credits at the 400 level):
   MGMT 321(3), MGMT 326(3), MGMT 331(3), MGMT 341(3), MGMT 401(3), MGMT 424(3); MGMT 431(3) or B A 250(3); MGMT 440(3), MGMT 445(3), MGMT 451W(3), MGMT 461 IL(3); MKTG 220(3) or MKTG 410(3); MKTG 310(3), MKTG 327(3), MKTG 330(3), MKTG 342(3), MKTG 422(3), MKTG 428(3), MKTG 445 IL(3), MKTG 450W(3), MKTG 478(3) (Sem: 5-8)
2. Select 3 credits from CAS 250(3), CAS 252(3), CAS 352(3), CAS 404(3) or ENGL 419(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.

Penn State Schuylkill/Individualized Business and Management/Marketing Options only (1/26/07)

Last Revised by the Department: Summer Session 2008

Blue Sheet Item #: 36-05-099

Review Date: 2/26/08

UCA Revision #1: 8/3/06

Comments (http://www.psu.edu/bulletins/bluebook/contact)

Information Sciences and Technology

Abington College
Berks College
Capital College
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 Schuylkill, Penn State Wilkes-Barre, Penn State Worthington Scranton, Penn State York
World Campus

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

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

PROFESSOR HENRY C. FOLEY, *Program Coordinator*

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 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.

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.

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

1. be taking, or have taken, a program appropriate for entry to the major as shown in the *Bulletin*, including approximately 60 credits of course work.
2. have completed the following entrance-to-major requirements with grades of C or better in each: IST 110(3); IST 210(4); and IST 220(3). These courses must be completed by the end of the semester during which the entrance-to-major procedure is carried out.
3. 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: 7 credits

REQUIREMENTS FOR THE MAJOR: 85 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): 64 credits

PRESCRIBED COURSES (33 credits)
CMPSC 101 GQ(3)**[1](#mnote01)** , IST 110 GS(3)**[1](#mnote01)** , IST 210(4)**[1](#mnote01)** , IST 220(3)**[1](#mnote01)** , IST 230(3)**[1](#mnote01)** , IST 240(3)**[1](#mnote01)** (Sem: 1-4)
STAT 200 GQ(4) (Sem: 3-6)
IST 495(1)**[1](#mnote01)** (Sem: 3-8)
IST 301(3)**[1](#mnote01)** , IST 331(3)**[1](#mnote01)** (Sem: 5-8)
IST 440W(3)**[1](#mnote01)** (Sem: 7-8)

ADDITIONAL COURSES (10 credits)
ECON 002 GS(3), ECON 004 GS(3), or ECON 014 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]** (#mnote01) at the 400 level in emerging issues and technologies from College-approved list (Sem: 5-8)

REQUIREMENTS FOR THE OPTION: 21 credits

INFORMATION SYSTEMS: DESIGN & DEVELOPMENT OPTION: 21 credits

PRESCRIBED COURSES (3 credits) **[1]** (#mnote01)
IST 311(3) (Sem: 5-8)

ADDITIONAL COURSES (6 credits) **[1]** (#mnote01)
Select 6 credits from IST 411(3), IST 412(3), or IST 413(3) (Sem: 5-8)

SUPPORTING COURSES AND RELATED AREAS (12 credits)
Select 12 credits from College-approved list (Sem: 5-8)

INFORMATION TECHNOLOGY: INTEGRATION & APPLICATION OPTION: 21 credits

PRESCRIBED COURSES (9 credits) **[1]** (#mnote01)
IST 302(3), IST 420(3), IST 421(3) (Sem: 5-8)

SUPPORTING COURSES AND RELATED AREAS (12 credits)
Select 12 credits from College-approved list (Sem: 5-8)

INFORMATION CONTEXT: PEOPLE, ORGANIZATIONS, AND SOCIETY OPTION: 21 credits

PRESCRIBED COURSES (6 credits) **[1]** (#mnote01)
IST 431(3) and IST 432(3) (Sem: 5-8)

ADDITIONAL COURSES (3 credits) **[1]** (#mnote01)
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)

[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: Summer Session 2009

Blue Sheet Item #: 37-06-049

Review Date: 4/14/09

IS

Letters, Arts, and Sciences

Abington College (LASAB)
Altoona College (LASAL)
Penn State Harrisburg (LASCA)
University College (LASCC): Penn State Beaver, Penn State Brandywine, Penn State DuBois, Penn State Fayette, Penn State Greater Allegheny, Penn State Hazleton, Penn State Mont

Alto, Penn State Shenango, Penn State Wilkes-Barre, Penn State Worthington Scranton, Penn State York
University Park, College of the Liberal Arts (LAS)
World Campus

Letters, Arts, and Sciences is a multi-disciplinary, theme-oriented, and student-designed major leading to a bachelor of arts degree. The major consists of 36 credits, divided into two sections. The core (12 credits) consists of 3 credits each in the following: research methods/projects; communication skills; theory/application; and critical analysis. The additional courses (24 credits) consist of courses directed toward the student's theme, 15 credits of which must be at the 400 level.

In order to be eligible for entrance to the major, the student must submit a proposal. In consultation with an LAS adviser, the student formulates a proposal designing a program that investigates a theme from the viewpoint of at least three different subject areas. Students may not duplicate existing majors from any academic area. An important standard for entrance to the Letters, Arts, and Sciences major is the student's ability to design a program with academic integrity worthy of a bachelor of arts degree.

For the B.A. degree in Letters, Arts, and Sciences, a minimum of 120 credits is required.

Early Admission Program for Professional Schools: If a student is accepted and enrolled as a degree candidate in a professional postgraduate degree program requiring three years or more to complete (such as medical school, dental school, law school, theological seminary, etc.) and if that student completes 94 undergraduate credits at Penn State including General Education, B.A. requirements, and the LAS 12-credit core requirements, that student may use up to 30 credits from the professional school to complete the B.A. in LAS.

It must be emphasized that only top students are accepted into professional school programs on such an early admission basis and that not every professional school has such a policy. Students must have enrolled in LAS prior to attending the professional school to request graduation in LAS.

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

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

ELECTIVES: 15 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: 36 credits**[1](#mnote01)**

ADDITIONAL COURSES (24 credits)
In consultation with adviser, select 24 credits from University-wide offerings to include:
a) 12 credits at the 400 level representing at least three different subject areas;
b) a 3 credit 400-level capstone course (to be selected in consultation wtih adviser);
c) at least 9 credits (of the 24 total) from the humanities and social sciences. (Sem: 1-8)

SUPPORTING COURSES AND RELATED AREAS (12 credits)
In consultation with adviser, select 3 credits in research methods/projects from courses that involve research methodology or that focus on a research project; select 3 credits in communication skills from courses that focus on expression including those in verbal, symbolic, and written skills; select 3 credits in theory/application from courses that focus on theory, principle, central concepts, or fundamental issues; select 3 credits in critical analysis from courses that focus on evaluation, synthesis, and analysis. (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: Summer Session 2008

Blue Sheet Item #: 36-04-042

Review Date: 1/15/08

Reviewed by Publications: 06/23/06

LA

Organizational Leadership

Abington College
Altoona College
Berks College
University College 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 Shenango, Penn State Wilkes-Barre, Penn State Worthington Scranton
University Park, College of the Liberal Arts (OLEAD): offered via World Campus and Continuing Education

This program is restricted to adult learners, as defined by the University

PROFESSOR JOHN L SELZER, *Head*

The degree draws on many of the disciplines of the liberal arts to illuminate the issues that all leaders face regarding work and employment issues in the 21st Century. Students select courses in English, crime, law, and justice, economics, political science, sociology, labor and industrial relations, communication arts and sciences, 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. This degree program requires that students develop competency in four critical areas and then apply those skills in disciplinary perspectives. All students are expected to develop proficiency in research methodology, critical analysis, communication skills, and the application of theory. Students can expect to learn and practice skills that focus on understanding how organizations function both formally and informally and how individuals function within organizations.

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 credits**[1](#mnote01)**
(This includes 4 credits of General Education GQ courses.)

PRESCRIBED COURSES (25 credits)
CAS 283(3), ECON 002 GS(3), ECON 004 GS(3), ENGL 215(3), PSYCH 281 GS(3), PSYCH 485(3), SOC 207(3), STAT 200 GQ(4) (Sem: 1-5)

ADDITIONAL COURSES (39 credits)
Select 39 credits:
Choose at least 12 credits in each of the 3 following areas.
Choose at least 15 credits at the 400 level.
1. Employer and Employees
LER 136 US(3), PHIL 010 GH(3), PHIL 103 GH(3), PSYCH 100 GS(3), SOC 035(3) (Sem: 1-6)
HIST/LER 458W(3), PSYCH 484(3), SOC 456(3) (Sem: 5-8)
2. Law, Policy, and Organizations
CRIMJ 100(3), LER 100 GS(3), LER 201 GS(3), PL SC 001 GS(3) (Sem: 1-6)
CRIM 113(3), CRIMJ 482(3), LER 424(3), LER 435(3), PL SC 490(3) (Sem: 5-8)
3. Workplace Dynamics
CAS 404(3), CAS 352(3), CAS 452(3), CAS 475(3), ECON 315 GS(3), ECON 342 GS(3), ENGL 419(3), LER 434(3), LER 472 GS(3), SOC 404(3), SOC 455(3) (Sem: 4-8)

[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 2005

Blue Sheet Item #: 33-03-290

Review Date: 7/11/05

UCA Revision #1: 8/9/06
UCA Revision #2: 7/30/07

LA

Associate Degrees

Business Administration

Abington College (2BAAB)
Altoona College (2BAAL)
Berks College (2BABL)
Capital College (2BACA)
University College (2BACC): Penn State Beaver, 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 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](#mnote01)** , MIS 204(3) (Sem: 2-4)

ADDITIONAL COURSES (17-18 credits)
ENGL 015 GWS(3) **[1](#mnote01)** or ENGL 030 GWS(3) **[1](#mnote01)** (Sem: 1-2)
MATH 021 GQ(3), MATH 022 GQ(3), or MATH 110 GQ(4) (Sem: 1-2) **[74](#mnote74)**
B A 243(4) **[1](#mnote01)** or B A 241(2) **[1](#mnote01)** and B A 242(2) **[1](#mnote01)** (Sem: 1-4)
ECON 002 GS(3) or ECON 004 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](#mnote01)** or MGMT 301W(3) **[1](#mnote01)** (Sem: 3-4)
b) Select 3 credits from MKTG 301(3) **[1](#mnote01)** or MKTG 301W(3) **[1](#mnote01)** (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 136 US(3); ECON 002 GS(3) or ECON 004 GS(3); MATH 022 GQ(3), MATH 110 GQ(4), MKTG 220(3) (Sem: 1-4)

PROFESSIONAL STUDIES OPTION: (18 credits) **[75](#mnote01)**

ADDITIONAL COURSES (18 credits)
Select 18 credits from ACCTG 151(3), ACCTG 152(3), ACCTG 153(3), ACCTG 160(3), ACCTG 186(3), B A 100 GS(3), B A 250(3); ECON 002 GS(3) or ECON 004 GS(3);CMPSC 140(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 120(3); MIS 130(3), MIS 190(3), MKTG 220(3); MKTG 221(3) or MKTG 221W(3); R EST 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

Electrical Engineering Technology

Altoona College
Berks College
Penn State Erie, The Behrend College
University College: Penn State Fayette, Penn State Hazleton, Penn State Wilkes-Barre, Penn State York (2 EET)

PROFESSOR SOHAIL ANWAR, *Program Coordinator, Penn State Altoona*
PROFESSOR DALE LITWHILER, *Program Coordinator, Penn State Berks*
PROFESSOR ROBERT WEISSBACH, *Program Coordinator, Penn State Erie, The Behrend College*
PROFESSOR ANDRZEJ GAPINSKI, *Program Coordinator, Penn State Fayette*

PROFESSOR KENNETH DUDECK, *Program Coordinator, Penn State Hazleton*
PROFESSOR ALBERT LOZANO, *Program Coordinator, Penn State Wilkes-Barre*
PROFESSOR MICHAEL MARCUS, *Program Coordinator, Penn State York*
PROFESSOR DHUSHY SATHIANATHAN, *Head, School of Engineering Design, Technology, and Professional Programs, Penn State University Park*

The Electrical Engineering Technology (2 EET) major helps prepare graduates for technical positions in the expanding fields of electronics, computers and microprocessors, instrumentation, and electrical equipment. The primary objective is to provide a broad foundation of theoretical and practical knowledge in the areas of electrical and electronic circuits, digital circuits, computers, electrical machinery, and programmable logic controls. The program also articulates with Pennsylvania Department of Education-approved Tech Prep programs. Secondary students who have graduated from a program covered by a signed Penn State Tech Prep Articulation Agreement may be eligible for special admission procedures and /or advanced placement. The major prepares graduates who, during the first few years of professional practice, will:

Demonstrate broad knowledge of electrical and electronics engineering technology practices to support design, application, installation, manufacturing, operation, and maintenance of electrical, electronic, computer, and instrumentation systems,

Apply basic mathematical and scientific principles for technical problem solving in areas that may include circuit analysis of both analog and digital electronics, microprocessors, programmable logic controls, and electrical machines,

Use computers and software in a technical environment,

Demonstrate competence in written and oral communication,

Work effectively as an individual and as a member of a multidisciplinary team,

Show awareness of social concerns and professional responsibilities in the workplace, and

Matriculate into a baccalaureate degree and/or continue their professional training and adapt to changes in the workplace, through additional formal or informal education.

Graduates of the Electrical Engineering Technology major may qualify for admission to the baccalaureate degree majors in Electrical Engineering Technology or Computer Engineering Technology offered at Penn State Harrisburg, Capital College; the baccalaureate degree major in Electrical Engineering Technology at Penn State Erie, The Behrend College; or the baccalaureate degree major in Electro-Mechanical Engineering Technology offered at Penn State Altoona, Penn State Berks, Penn State New Kensington or Penn State York.

For the Associate in Engineering Technology degree in Electrical Engineering Technology, a minimum of 66 credits is required. This program is accredited by the Technology Accreditation Commission of ABET, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700, or 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 General Education description in front of *Bulletin*)

REQUIREMENTS FOR THE MAJOR: 57 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 (38 credits)
EET 105(3), CMPET 117(3) **[1](#mnote01)** , CMPET 120(1); ENGL 015 GWS(3), MATH 022 GQ(3), MATH 026 GQ(3), MCH T 111(3), MCH T 112(1), MET 105(3) (Sem: 1-2)
CAS 100 GWS(3), CMPET 211(3), EE T 114(4) **[1](#mnote01)** , EE T 118(1) **[1](#mnote01)** , EET 212W(4) (Sem: 3-4)

ADDITIONAL COURSES (19 credits)
EDSGN 100 (3) or EG T 119 (2) and EET 002S (1) (Sem: 1-2)
PHYS 150 GN(3) or PHYS 250 GN (4) (Sem:3-4)

Select 13 additional credits from one of the following tracks **a** or **b**:

a. Students following the baccalaureate track must complete the following courses (10-11 credits):
EET 214 (3); MATH 083 GQ(4) or MATH 140 GQ(4); CHEM 110 GN (3) and CHEM 111 GN (1) or PHYS 151 GN(3) or PHYS 251 GN (4) (Sem: 3-4)
Select at least 3 additional credits from the following technical courses:
BET 201(5), BI SC 003 GN(3), CHEM 101 GN(3), CHEM 110 (3), CHEM 111 (1), CMPSC 101 GQ(3), CMPSC 201C GQ(3), EET 215 (1), EET 275 (3), EET 297 (1-9), EMET 230 (3), IST 210 (4), IST 220(3), IST 221(3), MATH 141 GQ(4), TELECOM 140 (2) (Sem: 3-4)

b. Students following the general track must select at least 3 credits science from the following:
CHEM 110 GN(3) and CHEM 111 GN(1), PHYS 151 GN(3), PHYS 251 GN (4) (Sem: 3-4)
Select at least 10 additional credits from the following technical courses: BET 201 (5), BI SC 003 GN(3), CHEM 101 GN(3), CHEM 110 (3), CHEM 111 (1), CMPSC 101 GQ(3), CMPSC 201C GQ(3), EET 214 (3), EET 215 (1), EET 275 (3), EET 297 (1-9), EMET 230 (3), IST 210 (4), IST 220(3), MATH 083 GQ(4) or MATH 140 GQ(4), MATH 141 GQ(4), PHYS 151 GN(3) or PHYS 251 GN (4), TELECOM 140 (2) (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.

Last Revised by the Department: Fall Semester 2008

Blue Sheet Item #: 36-03-017

Review Date: 11/27/07

UCA Revision #1: 8/3/06
UCA Revision #2: 7/27/07

Comments (http://www.psu.edu/bulletins/bluebook/contact)

EN

Information Sciences and Technology

Berks College
Continuing Education
University College: Penn State Beaver, Penn State DuBois, Penn State Fayette, Penn State

Hazleton, 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 Park, College of Information Sciences and Technology (2 IST)
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 MICHAEL D. McNEESE, *in charge*

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.

Web Administration Option: This prepares graduates for positions as Web administrators and Web programmers.

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.

Data/Information Option: This option prepares graduates for entry-level database support positions. Students take courses in relational database systems and database management.

Industrial/Manufacturing Option: This option prepares graduates for entry-level

manufacturing information systems positions. Students take courses in electrical and mechanical systems, and business and industrial processes.

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: 2-6 credits

REQUIREMENTS FOR THE MAJOR: 45-47 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): 30 credits

PRESCRIBED COURSES (26 credits)
CMPSC 101 GQ(3)**[1](#mnote01)** (Sem: 1-2)
CAS 100B GWS(3), IST 110 GS(3) **[1](#mnote01)** , IST 111S(1), IST 210(4) **[1](#mnote01)** , IST 220(3)**[1](#mnote01)** , IST 250(3), ENGL 015 GWS(3) (Sem: 1-2)
IST 260W(3) (Sem: 3-4)

ADDITIONAL COURSES (4 credits)
ENGL 202C GWS(3) or ENGL 202D GWS(3) (Sem: 3-4)
IST 295A(1) or IST 295B(1) (Sem: 3-4)

REQUIREMENTS FOR THE OPTION: 15-18 credits

BACCALAUREATE OPTION: (17-18 credits)

PRESCRIBED COURSES (13 credits)
IST 230(3) and IST 240(3) (Sem: 3-4)
ECON 002 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 186(3), ACCTG 211(4), B A 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 002 GS(3), ECON 004 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. (Sem: 1-4)

SOFTWARE OPTION: (15 credits)

PRESCRIBED COURSES (12 credits)
CMPSC 302(3) (Sem: 2-4)
IST 211(3), IST 247(3), and IST 256(3) (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), IST 226(3), IST 227(3), and IST 228(3) (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)

WEB ADMINISTRATION OPTION: (15 credits)

PRESCRIBED COURSES (12 credits)
IST 255(3), IST 256(3), IST 257(3), and IST 258(3) (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)

MANUFACTURING OPTION: (16 credits)

PRESCRIBED COURSES (12 credits)
IST 271(3), IST 272(3), IST 273(3), and IST 274(3) (Sem: 3-4)

ADDITIONAL COURSES (4 credits)
MATH 110(4) or MATH 140(4) (Sem: 1-2)

TELECOMMUNICATIONS OPTION: (15 credits)

PRESCRIBED COURSES (12 credits)
IST 221(3), IST 222(3), IST 223(3), and IST 224(3) (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)

DATA/INFORMATION OPTION: (15 credits)

PRESCRIBED COURSES (12 credits)
IST 211(3), IST 212(3), IST 213(3), and IST 214(3) (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: Summer Session 2003

Blue Sheet Item #: 31-04-085

Review Date: 10/6/05

UCA Revision #2: 7/27/07

Letters, Arts, and Sciences

Abington College (2LAAB)
Altoona College (2LAAL)
Penn State Erie, The Behrend College (2LABC)
Berks College (2LABL)
Capital College (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 Greater Allegheny, Penn State Lehigh Valley, Penn State New Kensington, Penn State Schuylkill (2LACA), Penn State Shenango Valley, Penn State Wilkes-Barre, Penn State Worthington-Scranton, Penn State York
University Park, College of the Liberal Arts (2 LAS)
World Campus

ASSOCIATE DEAN JOHN L. SELZER, *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](#mnote01)**
(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

Mechanical Engineering Technology

Altoona College
Berks College
Penn State Erie, The Behrend College
University College: Penn State DuBois, Penn State Hazleton, Penn State New Kensington, Penn State York (2 MET)

PROFESSOR BRUCE MULLER, *Program Coordinator, Penn State Altoona*
PROFESSOR BARBARA MIZDALL,*Program Coordinator, Penn State Berks*
PROFESSOR DAVID JOHNSON, *Program Coordinator, Penn State Erie, The Behrend College*
PROFESSOR SOMNATH CHATTOPADHYAY, *Program Coordinator, Penn State DuBois*
PROFESSOR WIESLAW GREBSKI, *System-wide Program Coordinator, Penn State Hazleton*
PROFESSOR JOAN KOWALSKI, *Program Coordinator, Penn State New Kensington*
PROFESSOR DANIEL STYDUHAR, *Program Coordinator, Penn State Shenango*
PROFESSOR MARSHALL COYLE,*Program Coordinator, Penn State York*

PROFESSOR DHUSHY SATHIANATHAN, *Head, School of Engineering Design, Technology, and Professional Programs, Penn State University Park*

This major helps graduates prepare for technical positions in manufacturing, machine and tool design, computer drafting and design, computer integrated manufacturing, materials selection and processes, technical sales, and other related industries in mechanical applications. The primary objective of the program is to provide a broad foundation in mechanical systems and applications; computer systems in drafting (CAD), manufacturing (CAM), and automation and robotics (CIM); production and product design; mechanics, dynamics, and strength of materials. This program also articulates with Pennsylvania Department of Education-approved Tech Prep programs. Secondary students who have graduated from a program covered by a signed Penn State Tech Prep Articulation Agreement may be eligible for special admission procedures and/or advanced placement. Graduates of the Associate Degree Mechanical Engineering Technology program will:

Have a broad knowledge in the areas of applied design, manufacturing, testing, evaluation, and technical sales, 2D and 3D modeling.

Have the ability to enter a Baccalaureate Mechanical Engineering Technology or related Engineering Technology program.

Be prepared to communicate effectively and work collaboratively in multi-disciplinary teams.

Be able to learn and adapt to changes in a professional work environment.

Demonstrate a high standard of professional ethics and be cognizant of social concerns as they relate to the practice of Engineering Technology.

Graduates of this major may qualify for admission to the baccalaureate degree majors in Mechanical Engineering Technology and Structural Design and Construction Engineering Technology programs at Penn State Harrisburg; the Mechanical Engineering Technology and the Plastics Engineering Technology programs at Penn State Erie, The Behrend College; or the baccalaureate degree major in Electro-Mechanical Engineering Technology offered at Penn State Altoona, Penn State Berks, Penn State New Kensington, or Penn State York.

For the Associate in Engineering Technology degree in Mechanical Engineering Technology, a minimum of 64 credits is required. This program is accredited by the Technology Accreditation Commission of ABET, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700, or 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: 55-57 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 (31 credits)
ENGL 015 GWS(3), CAS 100 GWS(3), CMPET 117(3), CMPET 120(1), MCH T 111(3)**[1](#mnote01)** (Sem: 1-2)
EG T 114(2), IET 215(2), IET 216(2), MCH T 213(3), MET 206(3) **[1](#mnote01)**, MET

210W(3), PHYS 151 GN(3) (Sem: 3-4)

ADDITIONAL COURSES (24-26 credits)
EDSGN 100(3) or EG T 120(3) (Sem: 1-2)
MATH 026 GQ(3) or MATH 081 GQ(3) (Sem: 1-2)
EET 100(3) or EET 105(3) (Sem: 1-2)
IET 101(3) **[1](#mnote01)** or MET 105 (3) **[1](#mnote01)** (Sem: 1-2)
MATH 022(3) or MATH 082 GQ(3) (Sem: 1-2)
MCH T 112(1) or MCH T 214(1) (Sem: 1-2)

Select 8-10 credits from one of the following tracks a, b, or c:

a) General Track
AE T 297(1-9), CHEM 101 GN(3), CHEM 110 GN(3), CHEM 111 GN(1), CMPSC 101 GQ(3), EET 100(3), EET 114(4), EET 118(1), EG T 297(1-9), IET 105(2), IET 109(3), IET 297(1-9), MET 281(4), SUR 111(3), or select 3 credits in consultation with an advisor from 200-level MET courses (Sem: 3-4)
IST 110 GS(3), IST 210(4), IST 220(3), IST 250(3), MATH 140 GQ(4), STAT 200 GQ(4), MATH 083 GQ(4), PHYS 150 GN(3), EG T 201(2) (Sem: 3-4)

b) CAD/IST Track
EG T 201(2) (Sem: 3-4)
IST 210(4) or IST 220(3) or IST 250 (3) (Sem: 3-4)
Select 3 credits in consultation with an advisor from 200-level MET courses (Sem: 3-4)

c)Baccalaureate Degree Track
MATH 140 GQ(4), STAT 200 GQ(4), CHEM 110 GN(3), EET 114(4), EG T 201(2) (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.

Last Revised by the Department: Fall Semester 2008

Blue Sheet Item #: 36-03-019

Review Date: 11/27/07

UCA Revision #1: 8/3/06
UCA Revision #2: 7/30/07

Comments (http://www.psu.edu/bulletins/bluebook/contact)

EN

Medical Laboratory Technology

University College (2 MLT): Penn State Hazleton

PROFESSOR PHILIP W. MOHR, *in charge, Penn State University Park*

This two-calendar-year Medical Laboratory Technology major (four semesters, two summer sessions) is designed to provide the necessary general and technical training for hospital personnel between the level of the medical laboratory technician (certificate program) and the medical technologist (baccalaureate program). The course of study includes one year of intensive clinical experience at an affiliated hospital and the theoretical background necessary for the clinical procedures performed by the certified

medical laboratory technician (associate degree program). Upon completion of program requirements, the student receives the associate degree and is eligible to sit for examinations leading to certification and registry as a medical laboratory technician.

Graduates of the Medical Laboratory Technology major may qualify for admission to the baccalaureate degree majors in Behavioral Sciences, Humanities, or Public Policy offered at Penn State Harrisburg.

For the Associate in Science degree in Medical Laboratory Technology, a minimum of 70 credits is required. (Scheduling of courses in summer session depends on campus location.)

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

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

REQUIREMENTS FOR THE MAJOR: 61-64 credits
(This includes 12 credits of General Education courses: 3 credits of GWS courses; 6 credits of GN courses; 3 credits of GQ courses.)

PRESCRIBED COURSES (53 credits)
BIOL 141 GN(3), BIOL 142(1), CHEM 110 GN(3), CHEM 111 GN(1), MICRB 201(3), MICRB 202(2) (Sem: 1-2)
CHEM 202(3), ENGL 015 GWS(3), MICRB 150(4) (Sem: 1-2, Summer)
CAS 100 GWS(3) (Sem: Summer)
MICRB 151A(7)**[1](#mnote01)**, MICRB 151C(6)**[1](#mnote01)**, MICRB 151D(4)**[1](#mnote01)**, MICRB 151E(2)**[1](#mnote01)**, MICRB 151F(2)**[1](#mnote01)**, MICRB 151W(6)**[1](#mnote01)** (Sem: 3-4)

ADDITIONAL COURSES (8-11 credits)
BIOL 011 GN(3), BIOL 012 GN(1); or BIOL 110 GN(4) (Sem: 1-2)
CMPSC 100(3) (Sem: Summer)
MATH 021 GQ(3) or higher-numbered MATH course, except MATH 035, MATH 036, and MATH 200; or STAT 200 GQ(4); or STAT 250 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: Summer Session 1995

Blue Sheet Item #: 23-03-104

Review Date: 4/2/03

UCA Revision #1: 8/9/06
UCA Revision #2: 7/30/07

UC

Nanofabrication Manufacturing Technology

University College (2 NMT): Penn State Fayette, Penn State Hazleton, Penn State Greater Allegheny, Penn State Wilkes-Barre, Penn State York

Not all options are available at every campus. Contact the campus you are interested in

attending to determine which options are offered.

This degree prepares graduates for technical positions in the expanding fields of nanofabrication technology or professional nanomanufacturing technology, biotechnology, and/or work in biomedical industries (bionanofabrication). There are two options provided; both require a capstone semester to be taken at the NMT Facility at the University Park campus where students take six ESci courses (3 credits each) of instruction for a total of 18 credits.

NANOMANUFACTURING ENGINEERING TECHNOLOGY OPTION (2NMT/ET): This option helps prepare graduates for technical positions in the field of nanofabrication technology. The primary objective is to provide a broad foundation of theoretical and practical knowledge in the areas of nanofabrication manufacturing, electrical and electronic circuits, digital circuits, nanofabrication manufacturing equipment, processing and testing. The program will also articulate with Pennsylvania Department of Education-approved Tech Prep programs. Secondary students who have graduated from a program covered by an assigned Penn State Articulation Agreement may be eligible for special admission procedures and/or advanced placement.

NANOMANUFACTURING SCIENCE OPTION (2NMT/SC): The Nanofabrication Science option is designed to provide for the basic educational needs of students who want to pursue professional programs in nanomanufacturing technology fields primarily in the biotech and biomedical industries (bionanofabrication). The program provides a fundamental group of science courses and a comprehensive group of nanomanufacturing technology courses to those who wish to pursue employment opportunities where such knowledge is necessary or desirable. The program offers a pathway for students to obtain jobs in new and exciting fields, as well as older, established disciplines that are upgrading with this new and emerging technology. Graduates of the program may qualify for admission to the baccalaureate degrees in science. Students who plan to continue in baccalaureate degrees are encouraged to work closely with their advisers.

For the Associate in Engineering Technology degree in Nanofabrication Manufacturing Technology, a minimum of 66-70 credits is required.

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

GENERAL EDUCATION: 21 credits
(12-15 of these 21 credits are included in the REQUIREMENTS FOR THE MAJOR)
(See General Education description in this bulletin.)

REQUIREMENTS FOR THE MAJOR: 60-66 credits
(This includes 12-15 credits of General Education courses: Nanomanufacturing Engineering Technology Option - 3 credits of GN courses; 3 credits of GQ courses; 3 credits of GWS courses; 3 credits of GQ, GWS, or GN courses; Nanomanufacturing Science Technology Option - 3 credits of GN courses; 3 credits of GQ courses; 3 credits of GWS courses; 3 credits of GH courses; 3 credits of GQ, GWS, GH, or GN courses.)

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

PRESCRIBED COURSES (31 credits)
ENGL 015 GWS(3) **[1](#mnote01)** (Sem: 1-2)
CAS 100 GWS(3)**[1](#mnote01)**, CHEM 110 GN(3) **[1](#mnote01)**, CHEM 111 GN(1)**[1](#mnote01)**, NMT 210W(3) (Sem: 3-4)
E SC 211(3), E SC 212(3), E SC 213(3), E SC 214(3), E SC 215(3), E SC 216(3) (Sem: 4)

REQUIREMENTS FOR THE OPTION: 29-35 credits

NANOMANUFACTURING ENGINEERING TECHNOLOGY OPTION: (30 credits)

PRESCRIBED COURSES (27 credits)
EET 101(3), EET 109(l), EET 114(4), CMPET 117(3) **[1](#mnote01)** , EET 118(l)**[1](#mnote01)** , CMPET 120(l), MATH 081 GQ(3), MATH 082 GQ(3) (Sem: 1-2)
NMT 250(1), PHYS 150 GN(3), STAT 200 GQ(4) (Sem: 3-4)

ADDITIONAL COURSES (3 credits)
EDSGN 100(3) or ET 002(1), EG T 101(1), and EG T 102(1) (Sem: 1-2)

NANOMANUFACTURING SCIENCE OPTION: (29-35 credits)

ADDITIONAL COURSES (29-35 credits)
BIOL 110 GN(4)**[1](#mnote01)** or BIOL 141 GN(3)**[1](#mnote01)** (Sem: 1-4)
EET 101(3) and EET 109(l) or E E 210(4) (Sem: 1-4)
Note: PHYS 250 and PHYS 251 ***or*** *PHYS 211 and PHYS 212 and MATH 140 are recommended for students planning to continue in baccalaureate programs of science.*
Select 4-6 credits from MATH 022 GQ(3) and MATH 026 GQ(3), or MATH 040 GQ(5), or MATH 140 GQ(4) (Sem: 1-2)
Select 3-4 credits from STAT 200 GQ(4), STAT 220(3), STAT 250 GQ(3) (Sem: 1-4)
Select 3 credits from PHIL 002 GH(3), PHIL 103 GH(3), PHIL 103W GH(3), PHIL 110 GH(3), PHIL 118 GH(3), PHIL 221 GH(3) (Sem: 1-4)
Select 3 credits from CMPSC 100(3), CMPSC 101 GQ(3), MIS 103(3) (Sem: 1-4)
Select 6-8 credits from PHYS 150 GN(3) and PHYS 151 GN(3) or PHYS 250 GN(4) and PHYS 251 GN(4) or PHYS 211 GN(4) and PHYS 212 GN(4) (Sem: 2-4)
Select 3 credits from BIOL 222(3), CHEM 112 GN(3), CHEM 202(3), CMPEN 271(3), or EDSGN 100(3) (Sem: 2-4)

[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: Summer Session 2005

Blue Sheet Item #: 33-01-095

Review Date: 6/28/05

UCA Revision #1: 8/9/06
UCA Revision #2: 7/30/07

UC

Physical Therapist Assistant

University College (2 PTA): Penn State DuBois, Penn State Hazleton, Penn State Mont Alto, Penn State Shenango

PROFESSOR THOMAS E. GLUMAC, *Director, Penn State Mont Alto*
PROFESSOR BARBARA E. REINARD, *Coordinator, Penn State DuBois*
PROFESSOR ROSE PETRILLA, *Coordinator, Penn State Hazleton*
PROFESSOR RICHARD L. HOLZWORTH, *Coordinator, Penn State Shenango*

This major helps prepare individuals to become skilled technical health workers who assist the physical therapist in patient treatment. Students develop knowledge and skills in the appropriate use of equipment and exercise associated with various physical therapy treatment modalities. In order to accomplish these tasks, the major utilizes a combination of basic science and nonscience course work coupled with health education courses specifically designed for the physical therapist assistant. The program culminates with a

full semester of clinical experience.

The size of each entering class is limited so that optimal clinical experiences and practical application situations can be maintained. Students are admitted into the program only during the fall semester and must progress through the program in the prescribed manner. Clinical affiliations are maintained over a wide geographical area. Students may be required to make special housing and transportation arrangements during the clinical phase. In order to accommodate the clinical practicum, this major requires five semesters to satisfy graduation requirements.

For the Associate in Science degree in Physical Therapist Assistant, a minimum of 68 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 description of General Education in this bulletin.)

REQUIREMENTS FOR THE MAJOR: 59 credits
(This includes 9-12 credits of General Education courses: 3-6 credits of GWS courses; 3 credits of GN courses; 3-6 credits of GS courses.)

PRESCRIBED COURSES (41 credits)
BIOL 129 GN(4) **[1](#mnote01)** , BIOL 141 GN(3) **[1](#mnote01)** , BIOL 142(1) **[1](#mnote01)** , ENGL 015 GWS(3), P T 100(3) **[1](#mnote01)** , P T 384(4) **[1](#mnote01)** (Sem: 1-2)
P T 150(2) **[1](#mnote01)** , P T 160(3) **[1](#mnote01)** , P T 250(4) **[1](#mnote01)** , P T 260(3) **[1](#mnote01)** , PSYCH 100 GS(3) (Sem: 3-4)
P T 395F(4)* **[1](#mnote01)** , P T 395G(4)* **[1](#mnote01)** (Sem: 5)

ADDITIONAL COURSES (18 credits)
P T 270(3) **[1](#mnote01)** or P T 270W(3) **[1](#mnote01)** (Sem: 1-2)
KINES 013(1) or KINES 303 GHA(3) (Sem: 1-4)
P T 280(4) **[1](#mnote01)** or P T 280W(4) **[1](#mnote01)** (Sem: 3-4)
CAS 203(3), ENGL 202C GWS(3), or PSYCH 212 GS(3) (Sem: 4-5)
P T 395E(4) **[1](#mnote01)** * or P T 395W(4) **[1](#mnote01)** * (Sem: 5)
Select 1-3 credits from any P T course not listed above in prescribed or additional courses. (Sem: 1-5)

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

*Courses that include clinical education experiences may require the student to travel long distances or obtain housing near the assigned clinic. Housing and transportation arrangements are the responsibility of the student.

Last Revised by the Department: Summer Session 2000

Blue Sheet Item #: 28-05-007

Review Date: 5/12/04

UCA Revision #1: 8/9/06

DS/MA/HN/SV

Minors

Business Minor

Abington College (BSBAB)
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 Mont Alto, Penn State New Kensington, Penn State Schuylkill, Penn State Shenango, Penn State Wilkes-Barre, Penn State Worthington Scranton, Penn State York

This interdisciplinary minor provides students with a business-oriented supplement to their academic major. It is designed to introduce students to a variety of fundamental business skills and knowledge. The minor consists of 22-23 credits, at least 6 credits of which must be at the 400 level. Only courses in which students earn a grade of C or better may be counted toward fulfillment of the requirements for the minor.

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

REQUIREMENTS FOR THE MINOR: 22-23 credits

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

ADDITIONAL COURSES: (6-7 credits)
Select 3 credits from ECON 002 GS(3) or ECON 004 GS(3) (Sem: 1-5)
Select 3-4 credits from B A 241(2) and B A 242(2) or B A 243(4); MIS 204(3), SCM 200 GQ(4) or STAT 200 GQ(4) (Sem: 1-5)
FIN 301(3), I B 303(3), SCM 301(3) (Sem: 5-8)
Note: A student who receives credits for B A 243 may not receive credit for either B A 241 or B A 242.

SUPPORTING COURSES AND RELATED AREAS: (6 credits)
Select 6 credits at the 400 level in consultation with your adviser and the approval of the director of the business minor (Sem: 5-8)

Last Revised by the Department: Summer Session 2008

Blue Sheet Item #: 36-01-057

Review Date: 8/28/07

UCA Revision #1: 8/3/06

Comments (http://www.psu.edu/bulletins/bluebook/contact)

AB/BK/UC

Information Sciences and Technology Minor

Abington College
Berks 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

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 one-time tuition surcharge will be applied to all students enrolled in the minor.

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: 19 credits

PRESCRIBED COURSES (10 credits)
IST 110 GS(3), IST 210(4), 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: Spring Semester 2004

Blue Sheet Item #: 32-01-075

Review Date: 10/6/05

IS