

University of Pittsburgh

**GRADUATE AND
PROFESSIONAL BULLETIN
2000 • 2003**

USING THIS BULLETIN

Students who are interested in or accepted to any of the University of Pittsburgh's graduate or professional programs other than those leading to the first-professional degrees offered by the University (MD, JD, LLM, PharmD, or DMD) will find useful most of the sections of this bulletin. Descriptions of the University, its regulations, and its services are included in the sections prior to the program-specific information in the Schools, Departments, and Programs section of the bulletin.

Students interested in first-professional programs (MD, JD, LLM, PharmD, or DMD) can ignore much of the bulletin prior to the First-Professional Programs section, but should familiarize themselves with the general information on the University, as well as the section on Campus Facilities & Student Services, and the University-wide policies detailed in Rights and Responsibilities. The Schools of Medicine, Law, Dental Medicine, and Pharmacy appear in the Schools, Departments, and Programs section for programs leading to the graduate and professional advanced degrees as well as in the First-Professional Programs section since these schools offer both types of programs. Faculty are listed by their department or program at the end of the school.

Students should note that the listings of requirements and procedures for admissions, registration, and other information listed in the sections prior to the more program-specific information provided in the Schools, Departments, and Programs section of this bulletin represent the minimum requirements and basic procedures. Students should consult the information on their specific school, program, and department for detail on additional or stricter requirements and procedures.

TABLE OF CONTENTS

THE UNIVERSITY OF PITTSBURGH	1	CAMPUS FACILITIES & STUDENT SERVICES	9
About the University	1	Academic Resources	9
History	1	University Library System	9
Accreditation	1	Barco Law Library	9
Academic Organization and Pittsburgh Campus Overview	1	Health Sciences Library System	9
Organization of Graduate and Professional Education at the University	2	Computing Services and Systems Development	10
APPLICATION FOR ADMISSION	3	Campus Computing Labs	10
Graduate Admissions	3	Network Authorization Accounts	10
Application Procedures	3	Network Port Connectivity	10
Application Deadlines	3	Computer Consulting Services	10
Graduate Admissions of International Students	3	Computer Sales and Digital Certification	10
International Student Application Deadlines and Application Fee	3	Computing Workshops and Training	10
International Student Academic Background and Credentials	3	Network Services	10
English Language Proficiency Requirements	4	Research and Academic Support	10
English Language Fluency for Teaching Assistants/Fellows	4	Center for Biotechnology and Bioengineering	10
Financial Support and Visa Documents	4	Center for Instructional Development & Distance Education (CIDDE)	11
Additional International Student Requirements	4	Center for Philosophy of Science	11
Admissions Status	4	English Language Institute	11
Full Graduate Status	4	Institutional Review Board	11
Provisional Graduate Status	5	Learning Research and Development Center (LRDC)	11
Special Status	5	Learning Skills Center	11
Guarantees and Early Admission to Graduate and First-Professional Programs	5	Office of Measurement and Evaluation of Teaching (OMET) ..	11
Tuition Deposit	5	Office of Research	11
Deferred Admission	5	University Center for International Studies (UCIS)	12
Readmission	5	University Center for Social and Urban Research (UCSUR)	12
Changing the Field of Graduate Study	5	Writing Center	12
FINANCIAL ISSUES:		Services for New Teaching Assistants	12
TUITION, FEES, LOANS, & SCHOLARSHIPS	6	Housing	12
Tuition	6	Student Resources	13
Tuition Deposit	6	Affirmative Action	13
Full Tuition	6	Athletics	13
Residency/Reduced Tuition	6	Book Centers	13
Eligibility for Reduced Tuition	6	Child Care	13
Financial Obligation of Students	6	Counseling Center	13
Fees	6	Disability Resources and Services	13
Financial Aid	7	Food Services	13
Teaching and Research Appointments	7	Health Care and Student Health Service	14
Teaching Assistants (TA)	7	ID Center	14
Teaching Fellows (TF)	7	International Services	14
Graduate Student Assistant (GSA)	7	Parking and Transportation	14
Graduate Student Researcher (GSR)	7	PITT ARTS	15
Fellowships and Traineeships	7	Placement Service	15
Scholarships	7	Public Safety	15
Stafford Loans	8	Sexual Assault Services	15
Lifetime Learning Tax Credits	8	Student Government	15
Deferred Payments	8	Student Organizations	16
Aid Deferrals	8	Survival Skills and Ethics Program	16
Deferred Tuition Payment Plan	8	Veterans Services	16
Payment	8	William Pitt Union	16
		GENERAL ACADEMIC REGULATIONS	17
		Advising	17
		Allowable Credits	17
		Acceptance of Transfer Credits	17
		Course Work Acceptable as Graduate Credit	17
		Credit by Course Examination	17

Cross Registration Credits	17	Interdisciplinary Doctoral Programs	26
Enrollment in Graduate Courses as an Undergraduate	17	Other Doctoral Degrees	26
Registration	18	Statute of Limitations/Leaves of Absence	26
Registering for Classes	18	Graduation	26
Full-Time and Part-Time Study	18	Requirements for Graduation	26
Maximum Credits per Term	18	Application to Graduate	27
Registration Status at Graduation	18	Certification for Graduation	27
Inactive Status	18	Commencement	27
Adding and Dropping Courses	18	Rights and Responsibilities	27
Auditing Courses	19	Academic Integrity Policy	27
Cross Registration	19	Affirmative Action and Non-Discrimination Policy	27
Registering for Two Independent Degree Programs Simultaneously	19	AIDS Policy	27
Registering for Cooperative-, Dual-, and Joint-Degree Programs	19	Computing Use Policy	27
Monitored Withdrawal from a Course	19	Copyright Policy	27
Resigning from the University for a Specific Term	19	Drug-Free School and Workplace Policy	28
Grading & Records	19	Faculty-Student Relationships	28
QPA and GPA	19	Family Educational Rights and Privacy Act	28
Academic Standards	19	Graduate Student Researcher Policy Statement	28
Grading System	19	Harassment Policies	28
University Grading Options	20	Human Research Subjects: Institutional Review Board	28
Letter Grades	20	Patent Policy	28
Other Grades: Incomplete, Withdraw, Resign	20	Research Integrity	29
Repeating Courses	20	Smoking Policy	29
Changing Grades	20	Student Code of Conduct	29
Academic Record	21	Judicial System	29
Grade Report	21	Teaching Assistant/Teaching Fellow/Graduate Student Assistant Policy Statement	29
Transcripts	21	SPECIAL ACADEMIC OPPORTUNITIES	30
Academic Honors	21	Area of Concentration and Minors	30
Probation, Suspension, and Dismissal	21	Certificate Programs	30
Effect on Financial Aid and Scholarships	21	Cross Registration	30
Editorial Assistance and Publication of Theses/Dissertations	21	Two Independent Degree Programs Simultaneously	30
Editorial Assistance	21	Cooperative-, Dual-, and Joint-Degree Programs	30
Regulations Pertaining to Master of Arts and Master of Science Degrees	21	SCHOOLS, DEPARTMENTS, AND PROGRAMS	31
MA and MS Requirements	22	Degree- and Certificate-Granting Programs	31
Comprehensive Examination	22	FACULTY OF ARTS AND SCIENCES	34
Thesis Option	22	Contact Information	34
Non-thesis Option	22	Admissions	34
Regulations Pertaining to Professional Master's Degrees	22	Deferred Admission	34
Professional Master's Degree Requirements	22	Transferring Between FAS Departments	34
Regulations Pertaining to Doctoral Degrees	23	Admission of International Students	34
Admission to Doctoral Study	23	Admission Status	35
Programs of Study	23	Early Admission Program	35
Credit Requirements	23	Inactive Status/Readmission	35
Residency Requirement	24	Financial Assistance	35
Preliminary Evaluation	24	Teaching and Research Appointments	35
Comprehensive Examination	24	Academic Standards	38
Doctoral Committee	24	Credits and Grade Points	38
Overview or Prospectus Meeting	24	Academic Probation and Dismissal	38
Admission to Candidacy for the Doctor of Philosophy Degree	25	Withdrawal from Courses	38
Registering for Full-Time Dissertation Study	25	Repetition of Courses	38
Dissertation and Abstract	25	Grade Changes	38
Language of the Doctoral Dissertation	25		
Final Oral Examination	25		

Independent Study	38	Research	52
Directed Study	38	Analytical Chemistry	52
Transfer Credits	38	Biological Chemistry	52
Registration of Undergraduate Students for Graduate Credit	39	Inorganic Chemistry	52
Statute of Limitations and Leaves of Absence	39	Organic Chemistry	52
Advising and Placement	39	Physical Chemistry	52
FAS Degree Requirements	39	Facilities	52
Requirements for the MA, MS, and MFA Degrees	39	Chemical Physics Program	52
Credit Requirements	39	Admissions	52
Foreign Language Requirement	40	Information for Newly Admitted Students	52
Comprehensive Examination	40	Degree Requirements	53
Thesis	40	Requirements for the Master's Degree	53
Application for Graduation	40	Requirements for the PhD Degree	53
Graduation Certification	40	Course Listings	53
Requirements for the PhD Degree	40	Classics	54
Credit Requirements	40	Contact Information	54
Course Requirements	40	Research	54
Foreign Language and/or Other Tools of Research	40	Facilities	54
Preliminary Examination	40	Program in Classics, Philosophy, and Ancient Science	54
Comprehensive Examination	40	Admissions	55
Doctoral Committee	40	Financial Assistance	55
Admission to Candidacy for the PhD Degree	40	Degree Requirements	55
Dissertation	41	Requirements for the Master of Arts Degree	55
Language of the Doctoral Dissertation	41	Requirements for the PhD Degree	55
Final Oral Examination	41	Course Listings	55
Multiple Degree Options	41	Communication	57
Department and Program Descriptions	42	Contact Information	57
Anthropology	42	Admissions	57
Contact Information	42	Financial Assistance	57
Admissions	42	Degree Requirements	57
Financial Assistance	42	Requirements for the Master's Degree	57
Degree Requirements	42	Requirements for the PhD Degree	57
Requirements for the Master's Degree	42	Course Listings	57
Requirements for the PhD Degree	43	Additional Course Offerings	58
Department Course Listings	45	Computer Science	58
Bioethics	47	Contact Information	58
Contact Information	47	Research	58
Research	47	Facilities	58
Facilities	47	Interdisciplinary Programs	58
Other Opportunities	47	Admissions	58
Admissions	47	Prerequisites for Graduate Study	59
Financial Assistance	48	Financial Assistance	59
Degree Requirements	48	Degree Requirements	59
Requirements for the Master's Degree	48	Requirements for the Master's Degree	59
Program Courses	48	Specialized Master of Science Tracks	59
Biological Sciences	48	Requirements for the PhD Degree	59
Contact Information	49	Course Listings	60
Research	49	Cultural Studies	61
Facilities	49	Contact Information	61
Interdepartmental Programs	49	Publications	62
Structural Biophysics	49	Admissions	62
MD/PhD Program	49	Financial Assistance	62
Admissions	49	Requirements for the Master's Certificate	62
Financial Assistance	50	Requirements for the Doctoral Certificate	62
Degree Requirements	50	Course Listings	62
Requirements for the Master's Degree	50	East Asian Languages and Literatures	63
Requirements for the PhD Degree	50	Contact Information	63
Course Listings	50	Admissions	63
Chemistry	52	Financial Assistance	63
Contact Information	52	Faculty Advisory Committee	63
		Admission to the MA Program	63

Admission to the MA/MBA Joint-Degree Program	63	Hispanic Languages and Literatures	83
Degree Requirements	64	Contact Information	83
Requirements for the MA Degree in East Asian Studies	64	Admissions	83
Certificate in Asian Studies	64	Degree Requirements	83
Course Listings	64	Requirements for the Master of Arts in Hispanic Languages and Literatures	83
Economics	64	MA Program in Spanish with Certification for Teaching in Pennsylvania	84
Contact Information	65	Requirements for the PhD Degree	84
Admissions	65	Course Listings	84
Financial Assistance	65	History	85
Requirements for the Master's Degree	65	Contact Information	85
Requirements for the PhD Degree	65	Admissions	85
Course Listings	67	Financial Assistance	86
English	68	Degree Requirements	86
Contact Information	68	Requirements for the Master's Degree	86
Admissions	68	Requirements for the PhD Degree	86
Financial Assistance	68	Course Listings	87
Advising	68	History of Art and Architecture	88
Degree Requirements	68	Contact Information	88
Requirements for the Master's Degree	68	Research	88
Requirements for the PhD Degree	69	Facilities	88
Course Listings	70	Admission to the MA program	89
Film Studies	72	Admission to the PhD program	89
Contact Information	72	Financial Assistance	89
Research	72	Degree Requirements	89
Facilities	73	Requirements for the Master's Degree	89
Related Activities	73	Requirements for the PhD Degree	90
Admissions	73	Course Listings	90
Financial Assistance	73	History and Philosophy of Science	92
Advising/Oversight	73	Contact Information	92
Requirements for the Master's Certificate	73	Research and Facilities	92
Requirements for the Doctoral Certificate	73	Specialization in Early Modern Science	93
Transfer Credits	74	Program in Classics, Philosophy, and Ancient Science	93
Course Listings	74	Related Activities	93
French and Italian Languages and Literatures	75	Admissions	93
Contact Information	75	Financial Assistance	93
Admissions	75	Degree Requirements	93
Financial Assistance	75	Requirements for the Master's Degree	93
Degree Requirements	75	Requirements for the PhD Degree	94
Requirements for the Master of Arts in French	75	Course Listings	94
Requirements for Master of Arts in Italian	76	Intelligent Systems Program	95
Requirements for the PhD Degree	76	Contact Information	96
Admission to Candidacy	76	Research	96
Course Listings	77	Computational Resources	96
Geology and Planetary Science	78	Admissions	96
Contact Information	78	Financial Assistance	97
Research	78	Degree Requirements	97
Facilities	78	Requirements for the Master's Degree	97
Admissions	79	Requirements for the PhD Degree	97
Financial Assistance	79	Course Requirements for Standard (Non-Medical Informatics) Track	97
Degree Requirements	79	Master's Thesis and Doctoral Dissertation Requirements ...	98
Course Listings	80	Requirements for Medical Informatics Track	98
Germanic Languages and Literatures	81	Course Listings	99
Contact Information	81	Linguistics	99
Admissions	81	Contact Information	99
Financial Assistance	81	Facilities	99
Degree Requirements	81	English Language Institute	99
Course Listings	82	Language Acquisition Institute	99
		Language Laboratory	99

Admissions	100	Admissions	113
Financial Assistance	100	Financial Assistance	113
Degree Requirements	100	Degree Requirements	114
Requirements for the Master's Degree	100	Requirements for the Master's Degree	114
Course Requirements for Specialization in Applied Linguistics	100	Requirements for the PhD Degree	114
Requirements for the PhD Degree	101	Course Listings	114
Requirements for the Certificate in TESOL	101	Political Science	115
Course Listings	101	Contact Information	115
Mathematics	102	Admissions	115
Contact Information	102	Financial Assistance	115
Research	102	Degree Requirements	115
Facilities	102	Requirements for the Master's Degree	115
Admissions	102	Requirements for the PhD Degree	116
Financial Assistance	102	Course Listings	116
Degree Requirements	103	Psychology	119
Requirements for the Master's Degree	103	Contact Information	119
Requirements for the PhD Degree	103	Research	119
Course Listings	103	Facilities	119
Medieval and Renaissance Studies	104	Admissions	119
Contact Information	104	Financial Assistance	119
Library Resources	104	Degree Requirements	119
Special Features	105	Requirements for the Master's Degree	119
Admissions	105	Requirements for the PhD Degree	119
Financial Assistance	105	Course Listings	120
Requirements for the Certificate	105	Religious Studies	121
Course Listings	105	Contact Information	121
Music	105	Admissions	121
Contact Information	105	Financial Assistance	121
Program in Composition and Theory	105	Degree Requirements	122
Program in Ethnomusicology	106	Requirements for the Master's Degree	122
Program in Historical Musicology	106	Requirements for the PhD Degree	122
Admissions	106	Course Listings	123
Application Deadlines	106	Slavic Languages and Literatures	125
Financial Assistance	106	Contact Information	125
Degree Requirements	106	Admissions	125
Requirements for the Master's Degree	107	Financial Assistance	125
Requirements for the PhD Degree	107	Degree Requirements	125
Course Listings	108	Requirements for the Master's Degree	125
Neuroscience	108	Requirements for the PhD Program	126
Contact Information	108	Course Listings	127
Research	109	Sociology	128
Admissions	109	Contact Information	128
Degree Requirements	109	Facilities	128
Financial Assistance	109	Publications	128
Philosophy	109	Admissions	128
Contact Information	109	Financial Assistance	129
The Center for Philosophy of Science	110	Degree Requirements	129
Program in Classics, Philosophy, and Ancient Science	110	Requirements for the Master's Degree	129
The Department of History and Philosophy of Science	110	Requirements for the PhD Degree	129
Admissions	110	Course Listings	129
Financial Assistance	110	Statistics	130
Degree Requirements	110	Contact Information	130
Requirements for the Master's Degree	110	Research	130
Requirements for the PhD Degree	110	Facilities	130
Course Listings	111	Admissions	130
Physics and Astronomy	112	Financial Assistance	131
Contact Information	112	Degree Requirements	131
Research	112	Requirements for the Master's Degree	131
Facilities	113	Requirements for the PhD Degree	131
		Course Listings	131

Theatre Arts	132	MBA/Master of Science in the Management of Information Systems (MS-MIS) Program	159
Contact Information	132	MBA/Master of International Business (MIB)	159
Theatrical Production at the University	132	MBA/Master of Arts	159
Theatre Resources in Pittsburgh	132	MBA/Master of Public and International Affairs (MPIA)	159
Admissions	133	Master of Health Administration (MHA) and (MHA/MBA)	159
Financial Assistance	133	MBA/Joint Degree in Business and Law (MBA/JD)	159
Degree Requirements	133	Executive MBA	160
Requirements for the Master's Degree	133	International Executive MBA	160
MA in Theatre Arts	133	MBA Course Listings	160
MFA in Theatre Arts	133		
Requirements for the PhD Degree	133	Doctoral Program	161
Course Listings	133	Contact Information	161
Women's Studies	134	Application Procedures	161
Contact Information	135	Financial Aid	161
Certificate Program	135	Sequence of Study	162
Directed Study	135	Timeline to Graduation	162
Course Listings	135	Placement	162
FAS Administration	136	Individual Program Design	162
FAS Faculty	136	Accounting	162
Department of Africana Studies	136	Artificial Intelligence	163
Department of Anthropology	136	Business Environment, Ethics, and Public Policy	163
Department of Biological Sciences	137	Finance	164
Department of Chemistry	138	Information Systems	164
Department of Classics	139	Marketing	165
Department of Communication	139	Operations and Decision Sciences	165
Department of Computer Science	139	Organizational Behavior and Human Resource Management	165
Department of East Asian Languages and Literatures	140	Strategic Planning and Organizational Studies	166
Department of Economics	140	PhD Course Listings	166
Department of English	140		
Department of French and Italian Languages and Literatures	141	Katz Graduate School of Business Faculty	167
Department of Geology and Planetary Science	142		
Department of Germanic Languages and Literatures	143	SCHOOL OF DENTAL MEDICINE	170
Department of Hispanic Languages and Literatures	143	Contact Information	170
Department of History	143	Residency Training Programs	170
Department of History of Art and Architecture	144	Admission Information	170
Department of History and Philosophy of Science	144	Selection Process Criteria	171
Department of Linguistics	144	Core Curriculum	171
Department of Mathematics	145	Advanced Education in General Dentistry	171
Department of Music	145	Certificate in Dental Anesthesiology	171
Center for Neuroscience	146	Dental Public Health	172
Department of Philosophy	147	MDS and Certificate Programs in Endodontics	172
Department of Physics and Astronomy	148	Maxillofacial Prosthetics	173
Department of Political Science	149	Oral and Maxillofacial Surgery	173
Department of Psychology	150	MDS and Orthodontics and Dentofacial Orthopedics	174
Department of Religious Studies	150	Advanced Pediatric Dentistry	174
Department of Slavic Languages and Literatures	151	MDS and Periodontics	175
Department of Sociology	151	MDS and Prosthodontics	175
Department of Statistics	151		
Department of Studio Arts	151	School of Dental Medicine Faculty	175
Department of Theatre Arts	152		
KATZ GRADUATE SCHOOL OF BUSINESS	153	SCHOOL OF EDUCATION	176
Contact Information	153	Contact Information	176
Application Procedures	153	Types of Programs Offered	176
Degree Options	153	Admission	176
Special Academic Opportunities	153	Changing Programs for Graduate Study	178
Graduation	154	Financial Assistance	178
MBA Program Descriptions	154	Advising	179
Full-Time MBA Program	154	Teacher Education Regulations	179
Part-Time/Evening MBA Program	158		

Master's Degree Requirements	180	General Special Education	202
Common Requirements	181	Vision Studies Specialization	202
Quality Point Average/Academic Probation	181	Department of Instruction and Learning Course Listings ..	202
Statute of Limitations	181		
Plan of Studies	181	Department of Psychology in	
Master's Comprehensive Examination	182	Education	207
Master's Degree with Thesis	182	Child Development and Child Care (CD&CC) Program ...	207
Master's Degree with Thesis Equivalent	182	Contact Information	207
Graduation Requirements	183	Admission Application Process	208
Doctoral Degree Requirements	183	Financial Assistance	208
Credit Requirements	184	Advising and Placement	208
Statute of Limitations	184	CD&CC Program Requirements	208
Doctoral Preliminary Examination	185	CD&CC Curriculum	208
Advancement to Doctoral Study	185	Specializations	209
Doctoral Comprehensive Examination	185	Child Development and Child Care Courses	209
Dissertation Overview	186	School Counseling Program	209
Approval of Research with Human Subjects	186	Admission to School Counseling Program	209
Advancement to Doctoral Candidacy	186	School Counseling Degree and Certification Options	209
Dissertation	186	Developmental and Educational Psychology Program	210
Department of Administrative and		Admission to Developmental and	
Policy Studies	187	Educational Psychology Program	210
Admission	187	Research Methodology Program	210
School Leadership Development Program	187	Admission to Research Methodology Program	210
Higher Education Administration Program	188	Research Methodology Program Degree Options	211
Social and Comparative Analysis in Education		Department of Psychology in Education Courses	211
(SCAE)	188		
Department of Administrative and Policy		School of Education Faculty	212
Studies Courses	188	Department of Administrative and Policy Studies	212
Department of Health, Physical, and		Department of Health, Physical, and Recreation Education ...	213
Recreation Education	190	Department of Instruction and Learning	213
Contact Information	190	Department of Psychology in Education	215
Admission	190		
Degree Options	190	SCHOOL OF ENGINEERING	216
Developmental Movement Program	191	Contact Information	216
Exercise Physiology Program	191	Admissions	216
Health Promotion and Education Program	191	Financial Aid	217
Sports Medicine Program	191	Advisors	217
Department of Health, Physical, and		Responsibility for Academic Progress	217
Recreation Education Courses	191	Master of Science Programs	217
Department of Instruction and		Doctor of Philosophy Programs	218
Learning	192	Entrance to the PhD Program	218
Admission	192	Course and Dissertation Credit Requirements	218
Cognitive Studies Program	192	Doctor of Philosophy Examinations	218
Early Childhood Education Program	193	Preliminary Examination (Qualifier)	218
Elementary Education Program	194	Comprehensive Examination	218
Reading Education Program	194	Final Oral Examination (Defense)	219
Secondary Education Program	195	Admission to PhD Candidacy	219
English/Communications Education Specialization	195	Doctoral Committee	219
Mathematics Education Specialization	196	PhD Dissertation	219
Science Education Specialization	196	Department of Bioengineering	219
Social Studies Education Specialization	198	Contact Information	219
Foreign Language Education Specialization	198	Master of Science Programs	220
Special Education Program	199	Doctor of Philosophy Program	220
Supervisor of Special Education	200	Bioengineering Graduate Courses	220
Special Education Doctoral Degrees	200		
Admission to Doctoral Programs in Special Education	200	Department of Chemical and	
Education of Deaf and Hard-of-Hearing Students		Petroleum Engineering	220
Specialization	200	Contact Information	221
Early Intervention for Children with Disabilities		Master of Science in Chemical Engineering	
Specialization	201	(Research-Oriented Program)	221
Mental and Physical Disabilities Specialization	201	Master of Science in Chemical Engineering	
		(Professional Engineer Program)	221
		Master of Science in Petroleum Engineering	221
		Dual Master's Degree	222

Doctor of Philosophy Degree	222	Non-thesis Option	238
Graduate Chemical Engineering Courses	223	Graduation Requirements	238
Graduate Petroleum Engineering Courses	223		
Civil and Environmental Engineering Department	224	Master of Arts and Master of Science Programs	238
Graduate Regulations in Civil Engineering	224	Clinical Dietetics/Nutrition	239
Advising	224	Clinical Dietetics/Nutrition Curriculum	239
Master of Science in Civil Engineering	224	Thesis or Non-thesis Options	239
Joint Master's Degree	224	Required Courses	239
Doctor of Philosophy Degree Requirements	224	Electives	239
Graduate Civil Engineering Courses	225	Communication Science and Disorders:	
Electrical Engineering Department	226	Master's Degree Program	239
Graduate Student Support	227	General Program Requirements	239
Joint Electrical Engineering-Mathematics		Master's Program in Speech-Language	
Master of Science Program	227	Pathology	240
Graduate Regulations in Electrical Engineering	227	Master's Program in Audiology	240
Master of Science in Electrical Engineering	227	Health Information Systems	241
Doctor of Philosophy	227	Health Care Supervision and Management (HSM)	242
Graduate Electrical Engineering Courses	228	Occupational Therapy	242
Industrial Engineering Department	228	Physical Therapy	243
Admission Requirements	228	Admission Requirements	243
Master of Science in Industrial Engineering	228	Financial Assistance	243
Doctoral Program in Industrial Engineering	229	Basis for Plan of Study	243
Graduate Industrial Engineering Courses	229	Comprehensive Examinations	243
Materials Science and Engineering Department	230	Physical Therapy Curriculum	243
Contact Information	230	Rehabilitation Science And Technology	244
Master of Science Program	230	Admission Requirements	245
Doctor of Philosophy Program	230	RST Curriculum	245
Graduate Materials Science and Engineering Courses	231	Specialty Curriculum Pathways	245
Mechanical Engineering Department	231	Certificate Program in Assistive and	
Departmental Regulations	231	Rehabilitation Technology	246
Admissions	231	Doctor of Philosophy Programs	246
Master of Science Program	231	Residency and Registration Requirements	246
Dynamic Systems	231	Active Status	246
Fluid Mechanics	232	Probation and Dismissal	246
Solid Mechanics Area	232	Doctor of Philosophy in Communication Science	
Thermal Systems	232	and Disorders	246
Doctor of Philosophy Program	232	Admission Requirements	247
Graduate Mechanical Engineering Courses	232	Financial Assistance	247
School of Engineering Faculty	233	Program Requirements	247
Bioengineering Department	233	Doctor of Philosophy in Rehabilitation Science	248
Chemical and Petroleum Engineering Department	233	Admission Requirements	248
Civil and Environmental Engineering Department	234	Financial Assistance	249
Electrical Engineering Department	234	Program Requirements	249
Industrial Engineering Department	235	Transfer of Credits	249
Materials Science and Engineering Department	235	Core Areas	249
Mechanical Engineering Department	236	Academic Advisor	249
SCHOOL OF HEALTH AND REHABILITATION SCIENCES	237	Plan of Study	249
Contact Information	237	Preliminary Examination	249
Admissions: Master's Degree Programs	237	Doctoral Committee and Committee Chair	250
Application Procedures	238	Comprehensive Examination and Dissertation Proposal	250
Application Deadlines	238	Dissertation	250
International Student Applicants	238	Entry-Level Professional Programs:	
Academic Standards	238	MOT and MPT	250
Maintenance of Active Status	238	Contact Information	250
Readmission	238	Master of Occupational Therapy (MOT)	251
Academic Probation	238	Admission Requirements	251
		Application Process and Deadline	251
		Admission Status	252
		Master of Occupational Therapy Curriculum	252
		Master of Occupational Therapy Course Listings	252

Master of Physical Therapy (MPT)	252	Department of Library and Information Science	266
Admission Requirements	252	Contact Information	266
Application Process	253	Admissions	266
Admission Status	253	Master of Library and Information Science (MLIS) Program	266
Statute of Limitations	253	MLIS Degree Requirements	266
Master of Physical Therapy Curriculum	253	Doctor of Philosophy in Library and Information Science (PhD - LIS) Program	267
COURSE LISTINGS	254	PhD - LIS Admission Requirements	267
Master of Physical Therapy	254	PhD - LIS Degree Requirements	267
SHRS Graduate	254	Statute of Limitations	268
Communication Science and Disorders	255	School Library Certification Program (SLCP)	268
School of Health and Rehabilitation Sciences Faculty	256	Supervisor of Library Science Certification (SLSC) Program	268
Department of Clinical Dietetics	256	Certificate of Advanced Study in Library and Information Science (CAS/LIS) Program	269
Department of Communication Science and Disorders	256	DLIS Course Listings	269
Department of Health Information Management	256	School of Information Sciences Faculty	270
Department of Occupational Therapy	256	Department of Information Science and Telecommunications	270
Department of Physical Therapy	257	Department of Library and Information Science	270
Department of Rehabilitation Science and Technology	257	SCHOOL OF LAW-MSL DEGREE	272
SCHOOL OF INFORMATION SCIENCES	258	Contact Information	272
Mission of the School	258	Admissions	272
Goals of the School	258	Financial Assistance	272
Contact Information	258	Academic Standards	272
Admission	258	Advising and Placement	272
Financial Assistance	259	Degree Requirements	272
Academic Standards	259	Major and Degree Options	272
Transfer of Credits	259	Faculty of School	272
Satisfactory/Audit (S/N) Grading System	259	SCHOOL OF MEDICINE	273
Advising and Placement	259	Clinical Research Training Program (CRTP)	273
Major and Degree Options	259	Contact Information	273
Special Academic Opportunities/Programs	260	Interdisciplinary Biomedical Science Graduate Program	273
Colloquia	260	Contact Information	273
Continuing Education	260	Admissions	273
Student Organizations	260	Financial Assistance	274
Alumni Association	260	Academic Standards	274
Beta Phi Mu	260	General Degree Requirements – All Interdisciplinary Biomedical Science Students	274
Department of Information Science and Telecommunications	260	Biochemistry and Molecular Genetics Program	274
Contact Information	261	Cell Biology and Physiology Program	274
Admissions	261	Cellular and Molecular Pathology Program	275
Registration and Residence Requirements	261	Human Genetics Program	275
Master of Science in Information Science (MSIS) Program	261	Immunology Program	275
MSIS Admission Prerequisites	262	Molecular Pharmacology Program	275
MSIS Degree Requirements	262	Molecular Toxicology Program	276
MSIS Statute of Limitations	262	Molecular Virology and Microbiology Program	276
Master of Science in Telecommunications (MST) Program	262	Neurobiology	276
MST Admission Prerequisites	262	Interdisciplinary Biomedical Science Graduate Program Faculty	277
MST Requirements	262		
MST Statute of Limitations	262		
Doctor of Philosophy in Information Science (PhD - IS) Program	262		
PhD - IS Admission Requirements	263		
PhD - IS Degree Requirements	263		
PhD Statute of Limitations	263		
Telecommunications Concentration	263		
Certificates – Information Science and Telecommunications	264		
DIST Course Listings	264		
Graduate Courses in Telecommunications	265		

SCHOOL OF NURSING 285
 Mission 285
 Contact Information 285
 Admission Process 285
 Master’s Program Admission Criteria 285
 Doctoral Program Admission Criteria 286
 Readmission 286
 Admission of Students from Other Countries 286
 Health Care Requirements 287
 Financial Assistance 287
 Academic Standards 287
 Advising and Placement 288
 General Degree Requirements 288
 Application for Graduation 288
 Major and Degree Options 288
 Special Academic Opportunities/Programs 289
 Educational Resources 290
 Computer Resources 290
 Research Resources 290
 RN-MSN Option 290
 RN-MSN Option Admission and Prerequisite Requirements 290

Master’s Program Descriptions 291
 Core Courses: All Master’s Programs 291
 Elective Courses 291
 Acute Care Nurse Practitioner (ACNP) Major 291
 Acute Care Nurse Practitioner Curriculum 292
 Acute Care Nurse Practitioner Course Listings 292
 Nurse Anesthesia Major 292
 Nurse Anesthesia Applicant Requirements 292
 Nurse Anesthesia Curriculum 292
 Nurse Anesthesia Course Listings 293
 Health Promotion and Development Major 293
 Family Nurse Practitioner (FNP) 293
 Pediatric Nurse Practitioner (PNP) 294
 PNP Applicant Requirements 294
 Pediatric Nurse Practitioner Curriculum 294
 Pediatric Nurse Practitioner Course Listings 294
 Women’s Health Nurse Practitioner (WHNP) 295
 Women’s Health Nurse Practitioner Curriculum 295
 Women’s Health Nurse Practitioner Course Listings 295
 Health and Community Systems Major 295
 Psychiatric Primary Care Nurse Practitioner 295
 Nursing Administration 296
 Nursing Education 297
 Nursing Research 298
 Nursing Informatics 298

Doctoral Program Description 299
 Admission to the Doctoral Program 299
 Length of Program 300
 Sample Curriculum Design:
 Post-Master’s to PhD Program 300
 Preliminary and Comprehensive Examinations and Dissertation Overview 300
 Dissertation Committee 300
 Admission to Candidacy for the Doctoral Degree 301
 Residency Requirement 301
 Dissertation and Abstract 301
 Doctoral Program Course Listings 301

School of Nursing Faculty 301

SCHOOL OF PHARMACY — GRADUATE (PHD/MS) PROGRAM 304
 Contact Information 304
 Admissions 304
 Financial Assistance 304
 Academic Standards 304
 Degree Options 304
 Special Academic Opportunities 304
 Program Descriptions 304

Master of Science in Pharmaceutical Sciences 305
PhD in Pharmaceutical Sciences 305
 Curriculum for PhD in Pharmaceutical Sciences 305
 Comprehensive Exam and Dissertation 305

Course Listings 306
School of Pharmacy Faculty 306

GRADUATE SCHOOL OF PUBLIC HEALTH 307
 Contact Information 307
 Admissions 307
 General Admission Requirements for Degree Programs ... 308
 Application Procedure: Degree Programs 308
 Application Procedure: Non-Degree Status Applicants 309
 Financial Assistance 309
 Academic Standards 309
 Advising and Placement 310
 General Degree Requirements 310
 General Requirements (all degrees) 310
 GSPH Core Courses 310
 General Requirements for Master’s Degrees 310
 General Requirements for Doctoral Degrees 311
 Major and Degree Options 311

Department of Biostatistics 311
 Contact Information 311
 Admissions 311
 Financial Assistance 312
 Requirements for Master’s Degrees 312
 Requirements for the Doctoral Degrees 312

Department of Environmental and Occupational Health 312
 Major Educational Areas and Programs 312
 Research Programs 313
 Facilities 313
 Contact Information 313
 Admission 313
 Program Requirements 313
 Master of Science and Master of Public Health (Non-Physician) Students 313
 PhD Students 313
 MPH Students in Occupational Medicine 313
 Certificate in Environmental Health Risk Assessment 314
 Certificate in Radiation Health 314

Department of Epidemiology 314
 Major Educational Areas 314
 Research 314
 Contact Information 314
 Admissions 314
 Financial Assistance 315
 Program Requirements: Master’s and Doctorate Curricula 315

Departmental Core Courses	315	MS Program Requirements	323
Master's Program Course Requirements	315	MPH Program Requirements	323
Doctoral Program Requirements	315		
Additional Frequently Used Courses	315		
Department of Health Services			
Administration	316	Multidisciplinary Master of Public Health Program	323
Affiliated Educational Certificate Programs	316	Contact Information	323
Certification in Public Health and Aging	316	Program Requirements	323
Management of Nonprofit Organization		GSPH Course Offerings	324
Certification Program	316	Graduate School of Public Health Faculty	326
Certificate in Women's Studies	317		
Certificate in Latin American Studies	317	GRADUATE SCHOOL OF PUBLIC AND INTERNATIONAL AFFAIRS	333
Research Focus	317	Contact Information	333
Contact Information	317	Admissions	333
Admission: MPH Applicants	317	Non-Degree Admission	334
Admission: MPH/PhD in Social Work Applicants	317	Admission Prerequisites	334
Admission: MHPE Applicants	318	Admission Deadlines	334
Admission: MPH/JD Applicants	318	Financial Assistance	334
Admission: MHA, MHA/MBA, and		Academic Standards	334
MHA/MPH Applicants	318	Advising and Placement	334
Admission: DrPH Applicants	318	Master's Degree Requirements	335
Financial Assistance	318	Major and Degree Options	335
Requirements for Master's Degrees	318	Special Academic Opportunities/Programs	336
Master of Public Health (MPH) Requirements	318	Master of Public Administration (MPA)	336
MPH/JD Requirements	318	Requirements for the Master of	
MPH/PhD in Social Work Requirements	319	Public Administration	336
MPH/MPA and MPH/MPIA Requirements	319	Policy Research and Analysis (PRA)	337
Master of Health Promotion and Education		Required courses	337
(MHPE) Requirements	319	Public and Nonprofit Management (PNM)	337
Master of Health Administration (MHA) Requirements	319	Required courses	337
Requirements for the Doctor of		Urban and Regional Affairs (URA)	337
Public Health Program	319	Required courses	337
Requirements for Certificate Programs	319	Criminal Justice (CJ) Minor	338
Certification in Public Health and Aging	319	Environmental Management and Policy	
Management of Nonprofit Organizations		(EMP) Minor	338
Certification Program	319	Nonprofit and Nongovernmental Organizations	
Certificate in Women's Studies	319	(NGO) Minor	338
Certificate in Latin American Studies	319	Personnel and Labor Relations Minor	338
		Requirements for the Certificate in	
Department of Human Genetics	319	Personnel and Labor Relations	339
Major Educational Areas and Programs	320	MPA Program Course Listings	339
Human Genetics	320	Master of Public and International Affairs (MPIA)	340
Genetic Counseling	320	Requirements for Masters of Public and	
Research	320	International Affairs	340
Contact Information	320	Economic and Social Development Major (MPIA/ESD)	340
Admission	320	Human Resource Management in Development	341
Financial Assistance	320	Global Political Economy Major	341
Program Requirements	320	Security and Intelligence Studies Major	342
MS in Human Genetics Requirements	320	MPIA Program Course Listings	342
MS in Genetic Counseling Requirements	321	Master of Public Policy and Management (MPPM)	343
PhD Human Genetics Requirements	321	Requirements for Masters of Public Policy	
		and Management (MPPM)	343
Department of Infectious Diseases and Microbiology (IDM)	321	Doctor of Philosophy in Public and International Affairs	343
Contact Information	321	Requirements for the PhD	343
Admission	321	Advanced Standing	344
Early Admission into the PhD and MS Programs	321	Mentors	344
Standard Admission into the PhD and MS Programs	322	Preliminary Planning Meeting	344
Financial Assistance	322		
Program Requirements	322		
Requirements for Master's and Doctoral Degrees	322		
Requirements for PhD	322		
DrPH Program Requirements	322		

Annual Reviews	344	Interdisciplinary Components of Doctoral Curriculum	362
Doctoral Core Courses	344	Specialization In Mental Health Services Research	362
Other Courses	344	CSWE Requirements for School of Social Work Faculty Positions	362
Language Requirements	344	Comprehensive Examination	363
Fields of Study	344	Doctoral Dissertation	363
Policy Issue Area Field	344	PhD Courses	363
Research and Technical Skills Field	344	School of Social Work Faculty	363
Comprehensive Examinations	344	UNIVERSITY CENTER FOR	
Dissertation	345	INTERNATIONAL STUDIES	365
Colloquium	345	Contact Information	365
Defense	345	Admission to Certificate Programs	365
Doctoral Program Course Listing	345	Advising	365
Graduate School of Public and		Certificate Requirements	365
International Affairs Faculty	345	Major and Degree Options	365
SCHOOL OF SOCIAL WORK	347	Asian Studies Program	365
Admissions	347	Asian Studies Certificate Requirements	366
Financial Assistance	348	Financial Assistance	366
Academic Standards	348	Asian Studies Program — Graduate Course Listing	366
NASW Code of Ethics	349	Latin American Studies	370
Advising and Placement	349	Admissions to Center for Latin American Studies	370
MSW and PhD Degree Requirements	350	Financial Assistance	370
Degree Options	350	Requirements for Certificates	370
MSW Joint and Cooperative Degree Programs	350	Graduate Certificate in Latin American Studies	370
PhD Joint Degree Programs	351	Graduate Certificate in Latin American Social and Public Policy	371
Special Academic Opportunities	351	Center for Latin American Studies Course List	371
Master of Social Work	351	West European Studies	372
MSW Admissions Information	352	Financial Assistance	373
Financial Assistance for MSW Students	353	Requirements for the Certificate	373
MSW Degree Requirements	353	West European Studies Course List	373
MSW Academic Standards: Probation	353	East European Studies, Russian	
Part-Time MSW Students	353	Studies, and Soviet Studies	376
Advanced Standing and Exemptions for MSW Course Work	353	Financial Assistance	377
Organization of the MSW Curriculum	353	Requirements for REES Certificates	377
Foundation Curriculum	353	REES Course List	377
Concentration Curricula	354	FIRST-PROFESSIONAL PROGRAMS	380
Community Organization and Social Administration (COSA) Concentration	354	SCHOOL OF DENTAL MEDICINE	381
Direct Practice with Individuals, Families, and Groups Concentration	355	Contact Information	381
Direct Practice Certificate Programs	357	Admissions Requirements	381
MSW Courses	358	Selection of Students	382
Post-Master's Certificate Programs	359	Transfer Students	382
Post-Master's Family Therapy Certificate	359	Financial Assistance	382
Admission Requirements	359	Scholarships	382
Post-Master's Employee Assistance Program Certificate	359	Loans	382
Admission Requirements	360	Academic Standards: Professional/Ethical Conduct Statement For Students	383
Post-Master's Home and School Visitor Certification Program	360	Grading	383
Doctor of Philosophy Program	360	DMD Program Requirements	383
Admission to Doctoral Program	360	DMD Curriculum	383
Program Transfer Credits	361	School of Dental Medicine Faculty	384
Financial Assistance for Doctoral Students	361		
Doctoral Curriculum Objectives	361		
Doctoral Requirements	361		
Grades in Course Work	362		
Program Flexibility and Individualization	362		
Core Doctoral Curriculum	362		

SCHOOL OF LAW	387	Department of Ophthalmology	410
Contact Information	387	Department of Orthopaedic Surgery	411
Admissions	387	Department of Otolaryngology	412
Admission: Transfer and Visiting Students	387	Department of Pathology	413
Flex-Time Program	387	Department of Pediatrics	415
Financial Assistance	388	Department of Pharmacology	418
Academic Standards	388	Department of Physical Medicine and Rehabilitation	418
Advising and Placement	388	Department of Psychiatry	419
Degree Requirements	389	Department of Radiation Oncology	422
Joint Degree Options	389	Department of Radiology	423
Law and Public Administration (JD/MPA)	389	Department of Surgery	424
Law and International Affairs (JD/MPA)	389	Department of Urology	427
Law and Business Administration (JD/MBA)	389		
Law and Public Health (JD/MPH)	389	SCHOOL OF PHARMACY	429
Law and Bioethics (JD/MA)	389	Contact Information	429
Law and Industrial Management (JD/MSIA)	389	Admissions Requirements and Application Deadlines	429
Law and Public Management (JD/MS)	389	Admission Options	430
Law and Arts Management (JD/MAM)	389	Conditional Admission	430
Special Academic Opportunities/Programs	389	Open Admission	430
Health Law Certificate Program	389	Application Procedure	430
Environmental Law, Science, and Policy Certificate Program	390	Tuition Deposit	430
International and Comparative Law Certificate Program	391	Financial Assistance: University-Wide and School-Specific	430
		Academic and Professional Standards	431
LLM Program for Foreign Law Graduates	391	Advising	432
Admission to LLM Program for Foreign Law Graduates ..	391	Placement	432
Financial Assistance	392	Degree Requirements	432
Academic Standards	392	Special Academic Opportunities/Programs	432
Advising and Placement	392		
Degree Requirements	392	Program Description	432
Special Academic Opportunities/Programs: Center for International Legal Education	392	School of Pharmacy Course Offerings	433
		School of Pharmacy Faculty	433
School of Law Faculty	392	ADMINISTRATIVE OFFICERS	437
		BOARD OF TRUSTEES	437
SCHOOL OF MEDICINE	394	DEANS OF THE UNIVERSITY, PITTSBURGH CAMPUS	437
Contact Information	394	SCHOOLS AND CAMPUSES	437
Requirements for Admission	394		
International Applicants	394	ACADEMIC CALENDAR 2001-2004	438
Application Procedures and Deadline	394		
Financial Aid	395	INDEX	441
Academic Standards	395		
Grading	395	MAP	452
Advising	396		
Degree Requirements	396	NONDISCRIMINATION POLICY STATEMENT	454
Degree Options	396		
School of Medicine Faculty	396		
Department of Anesthesiology	396		
Department of Cell Biology and Physiology	399		
Department of Dermatology	399		
Department of Emergency Medicine	400		
Department of Family Medicine and Clinical Epidemiology	400		
Department of Medicine	400		
Department of Molecular Genetics and Biochemistry	406		
Department of Neurobiology	407		
Department of Neurology	408		
Department of Neurosurgery	408		
Department of Obstetrics, Gynecology, and Reproductive Sciences	409		

UNIVERSITY OF PITTSBURGH



THE UNIVERSITY OF PITTSBURGH

ABOUT THE UNIVERSITY

The University of Pittsburgh is an internationally respected center of learning and research, offering exceptional educational opportunities in the humanities, sciences, and professions. The University's mission is to advance teaching, research, and public service. This tripartite commitment enables the University to serve others by:

- educating diverse students from the region, the nation, and the world;
- expanding the boundaries of knowledge, discovery, and technology; and
- enhancing quality of life in the western Pennsylvania region and beyond.

HISTORY

The University began in the Pennsylvania wilderness as the Pittsburgh Academy in 1787, the year the U.S. Constitution was adopted. Thirty-two years later, the Pittsburgh Academy became the Western University of Pittsburgh, and in 1908, the school changed its name to the University of Pittsburgh.

The recognition of graduate study at the University of Pittsburgh began with the awarding of Master of Arts degrees in 1836. By 1870, over 30 MA degrees had been awarded. These degrees were conferred for study beyond the Bachelor of Arts degree. In 1884, Chancellor Milton Goff set up a two-year professional study program leading to either a Master of Philosophy (predecessor of the Master of Science degree) or a Master of Arts degree and a three-year program leading to a Doctor of Philosophy degree. Before admission to these programs, each student was required to show proficiency in three areas of study. Both master's and doctoral candidates were required to prepare and defend theses.

In 1906, new rules were formulated for graduate study, requiring students to be in residence and requiring the completion of one year of study or 30 credits for the master's degree and three years or 90 credits for the doctoral degree. The catalogues of 1908 and 1909 announced the establishment of the Graduate School with five departments offering courses for the Doctor of Philosophy degree. These departments, plus five others, offered courses for the Master of Arts degree.

In 1910, a faculty committee drafted proposals, adopted by the board of trustees in 1913, making the Graduate School an independent administrative unit of the University and authorizing the selection of a Graduate Council. The Graduate School was grouped into three divisions (Humanities, Social Sciences, and Natural Sciences) in 1947. Until 1956, the administration of graduate study was the responsibility of the dean of the Graduate School and the Graduate Council. At that time, the individual schools and the three divisions were given direct administrative responsibility for their graduate programs in accord with the regulations established by the University Council on Graduate Study—formerly the Graduate Council. In 1968, the dean of the Graduate School retired from his administrative role, and the position he had held was discontinued. General responsibility for the

University's graduate programs was assigned to the provost pending reorganization of the University's graduate structure. The University Council on Graduate Study, the University administration, and members of the Graduate Faculty cooperated in drafting a proposed reorganization of graduate study, which was approved by written ballot by the entire Graduate Faculty and, in turn, accepted by Chancellor Wesley Posvar. This organizational structure became effective July 1, 1971 and is still the official structure.

Thus, during the 200-plus year history of the University, graduate education has grown to encompass the Faculty of Arts and Sciences and all 13 of the professional schools, which share a commitment to meet the nation's need for well-educated researchers, scholars, and leaders of professions and the tri-state region's need for trained professionals.

A private institution for most of its past, the University of Pittsburgh became state-related in 1966, establishing a relationship with the Commonwealth of Pennsylvania that continues to benefit both partners. Today, as an elected member of the prestigious Association of American Universities, the University of Pittsburgh claims its place among the top public research universities in the nation.

ACCREDITATION

The University of Pittsburgh, including its four regional campuses, is accredited by the Middle States Association of Colleges and Schools' Commission on Higher Education. In addition, schools, programs, and departments may be accredited by discipline-specific accrediting bodies. *See Schools, Departments, and Programs section of this bulletin for this information.*

ACADEMIC ORGANIZATION AND PITTSBURGH CAMPUS OVERVIEW

An independent, state-related, coeducational institution, the University of Pittsburgh's Pittsburgh campus offers a multitude of degree-granting and other programs housed in 16 undergraduate, graduate, and professional schools. The University system includes the Pittsburgh campus and four regional campuses at Bradford, Greensburg, Johnstown, and Titusville; the regional campuses offer undergraduate programs only.

More than 90 buildings are located on the Pittsburgh campus, which covers 132 acres in the culturally rich Oakland neighborhood. At the heart of the campus stands a central landmark—the Cathedral of Learning, a 42-story Gothic tower, which is the tallest school building in the western hemisphere. The Cathedral contains the remarkable Nationality Rooms: 26 classrooms, each of them designed to reflect a distinct culture.

On the Pittsburgh campus, over 3,400 faculty serve 25,900 students, including 9,100 graduate and 16,800 undergraduate students. Alumni accomplishments range from managing Fortune 500 corporations, to writing best-selling novels, to unlocking the secrets of DNA...and more.

The University of Pittsburgh remains a place of enduring tradition and vitality, true to the work ethic of western Pennsylvania, rich in intellectual rigor, and committed to preparing students for their lives and careers.

2 UNIVERSITY OF PITTSBURGH

WEB ADDRESS

For more information on the University of Pittsburgh, see the University's Web site at <http://www.pitt.edu/>.

ORGANIZATION OF GRADUATE AND PROFESSIONAL EDUCATION AT THE UNIVERSITY

While the University Council on Graduate Study (<http://www.pitt.edu/~graduate/ucgs.html>), acting for the Graduate Faculty, develops minimum standards for graduate work throughout the University, the immediate responsibility for developing and administering graduate programs is assigned to the deans and Graduate Faculty members of the several schools and the Faculty of Arts and Sciences. This responsibility applies both to the traditional MA, MS, and PhD

programs and to programs leading to advanced professional degrees, except for first-professional degrees (i.e., the MD, JD, LLM, PharmD, and DMD). The provost has responsibility for the general supervision of graduate and professional programs, including first-professional degree programs, throughout the University, giving leadership to the deans and faculties in maintaining high standards of instruction and research.

Faculty are appointed to the Graduate Faculty by the provost upon recommendation by the dean on the basis of an appraisal by the faculty of a department or other appropriate faculty group. Graduate Faculty are competent in graduate instruction and in supervision of student research at all levels and are active in advancing knowledge through their own research.

APPLICATION FOR ADMISSION

Graduate admissions to the University of Pittsburgh are handled by the particular graduate school or program; there is no central admissions office for graduate and professional schools at the University.

This section details only the University requirements and procedures for admission to the University. The Graduate Admissions Office of each school provides admissions information for prospective students to that school. *Schools' admissions requirements are listed under the Schools, Departments, and Programs section of this bulletin.*

The admissions information in this section is subject to change at any time. It is intended to serve only as a general source of information.

GRADUATE ADMISSIONS

Decisions regarding admission are based on an overall evaluation of all the credentials submitted by the candidate and in accord with the availability of faculty, facilities, and student support necessary to meet the applicant's expressed academic and research needs and interests. Many departments or programs have a limited number of places available. *Interested students should refer to the Schools, Departments, and Programs section of this bulletin in addition to the general admission information provided here.*

APPLICATION PROCEDURES

Students seeking admission should call or write for application forms and descriptive materials to the school or program of intended graduate study. In many cases, application materials are available online; prospective students are encouraged to check the Web site of their programs of interest. *See Schools, Departments, and Programs sections of this bulletin for contact information.*

Students should then return to the department or school the completed application forms and a check (not cash) for the application fee payable to the University of Pittsburgh. Generally, students applying online have the option of paying application fees online via credit card or by sending a check. The application fee is required of all applicants and is non-refundable; it does not apply toward the payment of tuition. *The fee varies from school to school, so prospective students should refer to the information on the relevant school in the Schools, Departments, and Programs section of this bulletin for the specific application fee required or go to that school's or department's Web site.*

Applicants must also request that the registrars of all undergraduate and any graduate schools attended send official transcripts of their records to the department or school of intended graduate study. In addition, many schools and departments require additional material. These materials may include any or all of the following: scores achieved on standardized examinations such as the Graduate Record Examination or the Graduate Management Admission Test, letters of recommendation, term papers written during previous study, evidence of work/life experience, evidence of motivation for graduate study, and a statement of career objectives. Applicants should arrange for a personal interview if requested by the department or school.

APPLICATION DEADLINES

See the Schools, Departments, and Programs sections of this bulletin for specific application deadlines, but note that students applying for fellowships and assistantships should file their applications at the earliest possible date. Applicants interested only in admission may be considered up to the deadline dates, but postponing applications may entail the risk that available spaces will be filled. Some programs admit students only for a particular term, so prospective students are encouraged to check with the school and program for specific admissions information.

GRADUATE ADMISSIONS OF INTERNATIONAL STUDENTS

Students from other countries should start the application process for admission nine to 12 months in advance of the date of intended enrollment and complete the process no less than three months before the registration date for the student's first term. Some schools may require even earlier applications. Applicants wanting to be considered for financial assistance must submit completed applications much earlier. Requests for application forms should be directed to the school in which the student wishes to enroll. All applicants should also take note of specific school and program requirements, such as the Graduate Record Examination (GRE scores). *Specific requirements are listed in the Schools, Departments, and Programs section of this bulletin.*

INTERNATIONAL STUDENT APPLICATION DEADLINES AND APPLICATION FEE

International students should contact the individual department or program to which they are applying to determine the required application deadlines for submitting a completed application, financial aid form, and application fee. Many programs have their application materials online via their Web sites. In general, international students should submit applications no less than three months before the term in which they want to begin taking classes. The deadlines and fees vary according to the school and program to which the student is applying. The fee must be submitted in the form of a check or money order made payable to the University of Pittsburgh. *See the individual school's international application information in the Schools, Departments, and Programs section of this bulletin for details or go to the school's or department's Web site.*

INTERNATIONAL STUDENT ACADEMIC BACKGROUND AND CREDENTIALS

The minimum requirement for admission to a graduate program is the completion of a bachelor's degree from an accredited institution in the United States or the completion of a level of education that the University of Pittsburgh deems comparable to a bachelor's degree from a regionally accredited U.S. institution.

Applicants are required to submit official original academic credentials. Official original academic credentials that are issued in a language other than English must be accompanied by a certified English translation. In addition, in cases where the grade reports, academic record, examination results, or transcript does not attest to the awarding of a degree or other academic qualification, a certified copy of the original certificate or diploma awarding the degree or qualification must be submitted. Certificates or diplomas that are

4 UNIVERSITY OF PITTSBURGH

issued in a language other than English must be accompanied by a certified English translation.

ENGLISH LANGUAGE PROFICIENCY REQUIREMENTS

Graduate students must possess sufficient proficiency in English to enable them to understand lectures, participate successfully in class discussion, and, in general, to be able to study without being hindered by language problems. To facilitate determination of proficiency, official results of the Test of English as a Foreign Language (TOEFL) are required if the applicant's native language is not English; this applies even if English has been the medium of instruction. A minimum score of 550 or higher on the TOEFL is required for admission to graduate study (or a TOEFL score of 213 on the computer-based test).

All students with a TOEFL score less than 650 (or 280 on the computer-based test) may be required by the department, program, or school to take the Michigan Test of English Proficiency upon arrival. Based on the test results, students may be required by their academic department to take courses in English as a foreign language before registering for graduate courses or may be required to take one or two such English courses in addition to graduate courses.

Any student scoring over 650 on the paper-based test (over 280 on the computer-based test) is exempted from further testing. The requirement to submit the results of the TOEFL may be waived if the applicant has recently received a satisfactory score on other tests of English language proficiency or has recently earned a degree from a regionally accredited institution in the United States.

The Educational Testing Service administers the TOEFL test at testing centers throughout the world. Students may take the test either in a traditional paper format or on a computer. Further information, testing dates, and test applications are available directly from the Test of English as a Foreign Language, Box 6151, Princeton, New Jersey, 08541, USA or by contacting a U.S. Consulate, an office of the U.S. Information Agency, an office of the U.S. Educational Commission, or a binational center. Information about the TOEFL is also available on the World Wide Web at <http://www.toefl.org/>. Applicants seeking September enrollment must take the TOEFL no later than the preceding March.

International students who are non-native speakers of English can contact the English Language Institute (ELI) on the University of Pittsburgh campus for assistance in meeting English proficiency requirements and taking the TOEFL. *See the Campus Facilities & Student Services section of this bulletin, page 9, for more information on the ELI.*

ENGLISH LANGUAGE FLUENCY FOR TEACHING ASSISTANTS/ FELLOWS

Teaching assistants (TAs) and teaching fellows (TFs) who are non-native speakers of English must be evaluated through a test designed to assess spoken English and English comprehension, approved by the Office of the Provost and administered by the English Language Institute (ELI). The Office of the Provost in consultation with ELI will establish minimum scores acceptable to permit a TA/TF to teach. Individual academic centers or departments may require higher scores than the established University minimums. All TAs/TFs with unsatisfactory scores on this test will be given non-teaching assignments and are required to take special course work until they attain a passing score. An unsatisfactory score at the time of reappointment is sufficient cause for nonrenewal of the student's TA/TF appointment. *See relevant school section in Schools, Departments, and Programs for more details.*

FINANCIAL SUPPORT AND VISA DOCUMENTS

While admission decisions are not based on financial support information, all applicants who are not U.S. citizens or Permanent Residents must submit a Financial Support Statement with their applications, even if applying for financial aid from the department. An award may not cover the entire cost of studies.

The Office of International Services cannot issue the document needed to apply for a student visa to enter the United States or to transfer non-immigrant status to the University of Pittsburgh until evidence of financial support adequate to cover the entire program of study has been submitted. Therefore, submission of a Financial Support Statement with an application will facilitate the issuance of a visa document.

ADDITIONAL INTERNATIONAL STUDENT REQUIREMENTS

The University of Pittsburgh reserves the right, even after arrival and enrollment, to make individual curricular adjustments whenever particular deficiencies or needs of a student are identified. In such instances, students may be required to take, at their own expense and without receiving credit, courses in English as a foreign language (*see English Language Proficiency Requirements above*) or courses prerequisite to their course of study to make up deficiencies.

It is strongly recommended that students arrive in Pittsburgh at least two weeks before the start of the term to allow sufficient time to make housing arrangements and take part in the orientation program conducted by the Office of International Services. In addition, the advising section of the Office of International Services, located in 708 William Pitt Union, offers assistance on a wide range of matters of concern to students from other countries. Call (412) 624-7120 or see <http://www.pitt.edu/~osaweb/ois/oisinfo.html> for more information.

ADMISSIONS STATUS

Admission may be granted or denied only by the dean of the school or his or her designee. However, non-immigrant students may be denied visa documents for non-academic reasons by the Office of International Services. Acceptable students are admitted to graduate study in a specific department or school with "full," "provisional," or "special" graduate status depending on their qualifications and objectives. The qualifications described below represent the minimum standards of the University. These may be made more stringent or specific at the option of the department or school.

FULL GRADUATE STATUS

For admission to full graduate status, an applicant must be a graduate of an accredited U.S. college or university and must be considered qualified for advanced study by the department or school. This normally is demonstrated by a B average (a quality point average of 3.00 on a 4.00 scale) or better in the total undergraduate program. (Note: the **Faculty of Arts and Sciences** requires a B average in the major field of study, and some of that school's departments require higher levels of achievement.) If students with less than a B average present alternative evidence (such as completion of an advanced degree or successful relevant work experience) of superior ability, they may be considered for full graduate status on the recommendation of the department of proposed graduate study. Only students with full graduate status may take the PhD preliminary evaluation, take the

MA/MS or PhD comprehensive examination, be considered for the award of an advanced degree or certificate, or be graduated.

PROVISIONAL GRADUATE STATUS

Applicants who are graduates of a recognized college or university but who do not qualify for admission to full graduate status because of deficiencies in either their undergraduate program or their scholastic achievement may be considered for provisional graduate status if strong supporting evidence of their ability to complete a graduate program is provided. Courses taken to remove deficiencies do not contribute toward completion of graduate degree requirements. Transfer from provisional to full graduate status is initiated and recommended by the department and is possible only after removal of deficiencies and other conditions noted at the time of admission and satisfactory progress in graduate work.

A student on provisional or special status or on probation is not eligible to take the PhD preliminary evaluation, to take the MA/MS or PhD comprehensive examination, or to be graduated.

SPECIAL STATUS

Students may be granted temporary admission as “special status” under the following circumstances:

1. Students who are seeking advanced degrees but who are unable to meet the deadline for filing all required credentials for admission may be granted temporary admission provided they present acceptable evidence concerning their qualifications for graduate study. Regular admission must be accomplished within the first term of registration.
2. Students who are not seeking an advanced degree but who have specific qualifications for one or more courses, including courses required for learning or certification, may register for such courses subject to review by the department and the dean of the school. Schools providing such an opportunity may specify the number of credits or courses for which a student may enroll while in this status and should also clearly specify the limitations on transfer of such credits toward a graduate degree if the student is subsequently admitted to a graduate degree program.

See Schools, Departments, and Programs section for specific requirements connected to special status students.

GUARANTEES AND EARLY ADMISSION TO GRADUATE AND FIRST-PROFESSIONAL PROGRAMS

Undergraduate students receiving an academic merit scholarship who indicate certain professional programs (including communication science, dental medicine, education, law, medicine, physical therapy, and public and international affairs) as their intended field of study on the Freshman Application to the University of Pittsburgh will be

automatically reviewed for guaranteed admission into that professional program. Early application is recommended, as spaces are limited.

Exceptionally able undergraduate University of Pittsburgh students may be admitted to full graduate status if their graduate and undergraduate schools have approved early admission as a permitted option and have established standards and procedures, and if the student needs no more than 24 credits to complete the baccalaureate degree. Credits earned while enrolled in the graduate program may also be counted toward fulfilling undergraduate degree requirements. *See Schools, Departments, and Programs section for further information on the possibility of early admission to specific programs.*

TUITION DEPOSIT

Once a student is admitted to a program, some of the graduate and professional schools at the University of Pittsburgh require a tuition deposit of \$100 to \$500 to secure the student's place in the incoming class. *Students should refer to Financial Issues: Tuition, Fees, Loans, & Scholarships, page 6, or to the admissions information for their specific school to determine the amount required for the tuition deposit.*

DEFERRED ADMISSION

If a department or school so approves, a student may defer admission for one year without having to complete any additional applications. If approved, the student is sent a new admission letter. Approval of a student's request to defer admission does not necessarily mean that any financial aid awarded is also deferred. *See Aid Deferrals, page 8, for more information on deferring financial aid.*

READMISSION

A student who has not registered for at least one credit or full-time dissertation study during a 12-month period will be transferred automatically to inactive status and must file an application for readmission to graduate study (and pay the application fee) before being permitted to register again. Inactive students cannot apply to graduate, nor take preliminary or comprehensive exams. Readmission is not automatic nor does it necessarily reinstate the student to the academic status enjoyed prior to becoming inactive. When readmitted, the student must be prepared to demonstrate proper preparation to meet all current admission and degree requirements. Readmission is automatic, however, for students who receive prior approval for a formal leave of absence.

CHANGING THE FIELD OF GRADUATE STUDY

A student already admitted to graduate study and desiring to change a major department of graduate study must file an application for such a change in the office of the dean or the department of the school the student wishes to enter. The application for admission to the new department will be evaluated in the same manner as an application from a new student.

FINANCIAL ISSUES: TUITION, FEES, LOANS, & SCHOLARSHIPS

TUITION

TUITION DEPOSIT

Some graduate and professional schools at the University of Pittsburgh require tuition deposits to secure the admitted student's place in the incoming class. These deposits are non-refundable and are applied toward the student's first term tuition costs. The schools that require deposits and the specific amounts are as follows:

<u>School</u>	<u>Amount</u>
Katz Graduate School of Business	
MBA Program	\$200
PhD Program	\$100
School of Dental Medicine	\$500
School of Health and Rehabilitation Sciences*	
MPT Program	\$250
School of Information Sciences	\$100
School of Law	
Due April 15	\$200
Due June 15	\$300
School of Medicine	\$100
School of Nursing (Anesthesia)	\$250
Graduate School of Public and International Affairs	\$200
Graduate School of Public Health	\$100

* NOTE: The other programs in the **School of Health and Rehabilitation Sciences** (MA, MS, and PhD) do not require a tuition deposit.

FULL TUITION

Graduate students enrolled for nine to 15 credits during the Fall and Spring Terms are considered full-time and pay a flat tuition rate. Students enrolled for one to eight credits are considered part-time and pay for individual credits. Students enrolled in the Summer Term also pay for individual credits, regardless of how many credits are taken (The **Katz Graduate School of Business** is an exception: full-time MBA students pay a flat rate in the Summer Term). See *Deferred Payments and Payment Adjustments sections below for information regarding tuition payment plans.*

Tuition rates are school specific. Students pursuing two degrees or a degree and a certificate simultaneously must list one as the primary academic program and may list the other as a secondary academic program on the registration form; students are billed at the tuition rate of the primary academic program. Please refer to the tuition rate for the school in which you are enrolled. The University's tuition chart is online at <http://www.ba.pitt.edu/irweb/tuition/tuithmpg.htm>.

RESIDENCY/REDUCED TUITION

Students who reside in the Commonwealth of Pennsylvania may be eligible for reduced tuition through state appropriations (*see Eligibility for Reduced Tuition below*). Eligibility is determined by criteria outlined in the *University of Pittsburgh Guidelines for Determining Eligibility for Reduced Tuition Rates*, available online at <http://www.bc.pitt.edu/sfs/paycenter.htm#TF>.

ELIGIBILITY FOR REDUCED TUITION

Assessment of full tuition or reduced tuition is based on whether the student is a permanent resident of the Commonwealth of Pennsylvania. Full tuition is charged to non-residents. A student who has lived in Pennsylvania for a continuous period of 12 months before enrollment in any institution of higher education in the state may be eligible for reduced tuition. The student must be a citizen of the United States or have an immigrant or permanent visa. For a student less than 21 years of age, both the student and parent(s) or legal guardian(s) must meet the residency requirements for eligibility.

FINANCIAL OBLIGATION OF STUDENTS

The University of Pittsburgh has the right to withhold services if a student defaults on any financial obligation until repayment arrangements have been made that are satisfactory to the office or department to which the debt is owed.

FEES

MANDATORY FEES

The following are mandatory fees assessed to students each term (current rates are available online at <http://www.ba.pitt.edu/irweb/tuition/tuithmpg.htm>):

- Student Activity Fee
- Student Health Fee
- Computer and Network Service Fee
- Security, Safety, and Transportation Fee

SPECIAL SERVICE FEES

These fees may be charged for University transactions that are processed beyond deadlines, due dates, and specified time limits.

COURSE FEES

Certain courses have fees associated with enrollment in the course. These courses are identified in the *Schedule of Classes and Course Descriptions*. The *Schedule of Classes* is online at <http://www.pitt.edu/~srfsweb/crinPgCrsInfo.htm>.

PROGRAM FEES

Certain graduate and first-professional programs have fees associated with enrollment in the program. These are typically fees for equipment or required insurance. See the *Schools, Departments, and Programs section of this bulletin for more information.*

FINANCIAL AID

Financial assistance for graduate students can be provided in the form of teaching and research appointments, fellowships, traineeships, tuition scholarships, and loans. The type of aid available depends on the school or program to which the student is admitted; students are encouraged to contact their school directly for more information about the types of financial assistance available. Admission to graduate study does not necessarily carry any implications concerning the award of financial aid.

TEACHING AND RESEARCH APPOINTMENTS

Students may receive financial support as teachers or researchers in their respective programs. In these positions, students are either teaching assistants (TAs), teaching fellows (TFs), graduate student assistants (GSAs), or graduate student researchers (GSRs). These appointments are generally for two terms at a time; guidelines covering these appointments and their current salary ranges are available through links from the University's Graduate Studies Web page at <http://www.pitt.edu/~graduate/>. In recognition of academic merit, the University offers TA/TF/GSA/GSR scholarships including tuition, fees (excluding the student activity fee), and individual medical insurance coverage. TAs/TFs/GSAs and GSRs can also purchase family medical coverage (for spouse and/or dependent children) by paying the difference between the premium costs for the individual option and the family option.

The University's policy concerning Teaching Assistants and Teaching Fellows, dealing with appointments, reappointments, terminations, benefits, and responsibilities, is contained in the *University TA/TF/GSA Policy Statement*, sent to all new Teaching Assistants. The University's policy concerning Graduate Student Researchers is contained in the *University GSR Policy Statement*, sent to all new GSRs. *The Teaching Assistant/Teaching Fellow/Graduate Student Assistant Policy Statement can also be found on page 28 of this bulletin under Rights and Responsibilities, and the University Graduate Student Researcher Policy Statement can be found on page 27.*

Students receiving these academic appointments must follow the relevant University policies as they apply to faculty and staff of the University of Pittsburgh; *see Rights and Responsibilities section of this bulletin for details.* For more information on what teaching and research positions may be available in a given program, *see the relevant information in Schools, Departments, and Programs.*

TEACHING ASSISTANTS (TA)

Teaching Assistants (TAs) are graduate students who have not qualified for an appointment as a teaching fellow. The duties of a TA might include teaching recitation sections, monitoring quizzes, assisting in laboratory instruction, or participating in related activities involving undergraduate programs. Full appointments usually require approximately 20 assigned hours per week.

TEACHING FELLOWS (TF)

Teaching Fellows (TFs) are graduate students more educationally advanced or experienced than a TA, typically holding the equivalent of a master's degree. The salaries for TFs are slightly higher than those for TAs. Full appointments usually require approximately 20 assigned hours per week.

GRADUATE STUDENT ASSISTANT (GSA)

Graduate Student Assistants (GSAs) are graduate students who perform duties to assist in the educational or research mission of the University, but do not teach classes, recitations, or labs. GSAs might assist a faculty member in library research, editorial duties, or similar academic tasks. Full appointments usually require approximately 20 assigned hours per week.

GRADUATE STUDENT RESEARCHER (GSR)

Research grants funded by government and private agencies provide a variety of full- and part-time research positions for graduate students. Most, but not all, of the GSR positions, which are also referred to as Graduate Research Assistants, are in projects that are directly related to the thesis or dissertation research of the student; all provide the student with valuable research training and experience.

FELLOWSHIPS AND TRAINEESHIPS

There are a variety of fellowships and traineeships available from the University of Pittsburgh and many other organizations that provide funding to students needing financial assistance and/or showing evidence of academic excellence. These awards may include a stipend, a tuition scholarship, health care coverage, or all three. Among the fellowships available from the University to students across a broad range of disciplines are the following:

PROVOST'S DEVELOPMENT FUND

This program is intended to provide financial support and development opportunities for women and disadvantaged students pursuing the doctorate or professional degree that would qualify them for an academic or administrative appointment. Financial assistance will be made available on the basis of need and merit. Any U.S. citizen or permanent resident who is enrolled in or admitted to a graduate program at the University is eligible. Ideally, the candidate would be in the advanced stages of the PhD program so that support for one year would complete the program. Applications are available from the Office of the Provost, 801 Cathedral of Learning, or online at <http://www.pitt.edu/~cedeno/pdfapp99.html>.

OWENS FELLOWSHIPS

A bequest of Samuel T. Owens Jr. makes fellowships available at the University of Pittsburgh for needy students who show promise of high academic achievement. These fellowships carry an annual stipend of \$2,000. The fellowships may be used in payment of tuition, books, and living expenses during the academic year for which the award is granted. Owens Fellowships are not available for a single term. Application forms are available in the University Office of Admissions and Financial Aid, Masonic Temple, Pittsburgh, PA 15260, (412) 624-7488. The deadline for application is usually in April.

For more information on specific fellowships and traineeships available to students in a particular program, see the Schools, Departments, and Programs section of this bulletin.

SCHOLARSHIPS

Scholarships from the University of Pittsburgh are a form of merit- and need-based financial aid. Outside scholarships are also applied toward tuition and other mandatory educational expenses. Scholarships do not have to be repaid.

STAFFORD LOANS

Stafford Loans are long-term, low interest rate loan programs available to degree-seeking students enrolled on at least a half-time basis. The amount of the loan is dependent upon financial need, but for a graduate student it could be as high as \$18,500 per academic year. While there is no deadline for applying, Stafford Loans can take as many as 60-90 days to be approved; therefore, students who intend to start graduate school in the Fall Term should start the loan process no later than May 15.

Financial aid application procedures are outlined in the University of Pittsburgh's *Financial Aid Booklet* and online at <http://www.pitt.edu/~oafa>. Information on Stafford Loans is available online at <http://www.finaid.org/loans/studentloan.phtml>; the University's Graduate Admissions and Financial Aid site (<http://www.pitt.edu/~graduate/admissions.html>) includes links to loan information for graduate students.

LIFETIME LEARNING TAX CREDITS

Taxpayers are eligible to claim a non-refundable Lifetime Learning Credit against their federal income taxes for the qualified tuition and related expenses of students who are enrolled in eligible educational institutions. Through 2002, the amount that may be claimed as a credit is equal to 20 percent of the taxpayer's first \$5,000 of out-of-pocket qualified tuition and related expenses for all the students in the family. After 2002, the credit amount is equal to 20 percent of the taxpayer's first \$10,000 of out-of-pocket qualified tuition and related expenses. Qualified tuition and related expenses for graduate-level education are eligible for the Lifetime Learning Credit.

For more information on Lifetime Learning Credits, see http://www.ed.gov/inits/hope/tax_qa/sec2.html.

DEFERRED PAYMENTS

AID DEFERRALS

Once students have applied for and been notified of financial aid eligibility, they may defer payments by obtaining a Financial Aid Deferral form in the Office of Admissions and Financial Aid and then submitting the form to the Student Payment Center. Whether a deferral of aid is allowed is dependent upon the type of aid awarded.

DEFERRED TUITION PAYMENT PLAN

Students in good financial standing with the University and registered during the Fall, Spring, or Summer Terms for three or more credits are eligible to participate in a deferred tuition payment plan to pay current term charges in three installments. First-time participants in the plan must make these arrangements in person at the Student Payment Center. Thereafter, participants may elect a mail option.

There is a \$20 fee each time a student sets up a payment plan, and an interest charge of 1% monthly on the unpaid principal is added to the remaining two installment payments. For more information on the deferred tuition payment plan, please contact the Student Payment Center via E-mail at payment@srfs.pitt.edu or online <http://www.bc.pitt.edu/sfs/paycenter.htm>.

PAYMENT

University statements may be paid by cash, check, or credit card; however, cash cannot be mailed or dropped into the Student Payment Center's depository. The University accepts Discover, MasterCard, and Visa credit card payments in person, by mail, or telephone. The Student Payment Center is located in room G-7 of Thackeray Hall. The mailing address is P.O. Box 371998, Pittsburgh, PA 15250-7998, and the phone number is (412) 624-7550.

Due dates are clearly designated on billing statements and are always the 17th of the month. Failure to pay the amount due (or to arrange a deferred tuition payment plan by the due date) will result in a late payment fee for students without a valid deferral.

If students who have a tuition scholarship (for example, via a TA/TF/GSR/GSA appointment) receive a tuition statement indicating that their tuition has not been paid, they should immediately contact the school or department administering the scholarship for assistance in correcting the error.

CHECK AND CREDIT CARD ADJUSTMENTS

As appropriate, payment made by check may be refunded to students. Adjustments to credit cards are made to the payer's credit card account and will be reflected on the Discover, MasterCard, or Visa monthly statement.

CAMPUS FACILITIES & STUDENT SERVICES

ACADEMIC RESOURCES

The University of Pittsburgh has a wide variety of academic resources that provide the infrastructure to aid students with their research and computing needs.

UNIVERSITY LIBRARY SYSTEM

271 Hillman Library
(412) 648-7710
E-mail: feedback@library.pitt.edu
Web site: <http://www.library.pitt.edu>

The University Library System (ULS) of the University of Pittsburgh is represented by 14 libraries located on the Pittsburgh campus, the Allegheny Observatory Library, the Archives Service Center, and a storage facility at UPARC in Harmarville. The ULS is a member of the Association of Research Libraries (ARL), the Oakland Library Consortium (OLC), and Pennsylvania Academic Library Connection, Inc. (PALCI). Through membership in several Pennsylvania consortia of libraries, cooperative borrowing arrangements have been developed with other Pennsylvania institutions.

Other University of Pittsburgh libraries include the Barco Law Library and the Health Sciences Library System (*see below for detail*), both located in Pittsburgh, as well as the four regional campus libraries—Bradford, Greensburg, Johnstown, and Titusville.

The University of Pittsburgh libraries and collections provide an abundant amount of information and services to the faculty, students, staff, administrators, and researchers of the University. In fiscal year 1999, the University's collections totaled nearly four million volumes, nearly four million pieces of microforms, and 26,000 subscriptions (these subscriptions include more than 24,000 print subscriptions and nearly 2,000 electronic journals). Also, through the Graduate and Professional Student Association (GPSA), interlibrary loan grants of up to \$25 a year are available to all graduate and professional students at the University to help offset the increasing costs of interlibrary loans between University of Pittsburgh libraries and those on other campuses. (*See <http://www.pitt.edu/~gpsa2/>.*)

Under the administration of the University Librarian, the University Library System (ULS) includes the following libraries and collections:

- Hillman (main), which houses:
 - African-American
 - Buhl (social work)
 - East Asian
 - Government Documents
 - Latin American Studies
 - Special Collections
- Allegheny Observatory
- Business Information Center
- Center for American Music
- Chemistry
- Computer Science

- Darlington Memorial
 - American History
- Engineering
- Fine Arts
- Information Sciences
- Langley
 - Biological Sciences
 - Neuroscience
 - Psychology
- Mathematics
- Music
- Physics/Astronomy
- Public and International Affairs/Economics

The Hillman Library is the largest library facility with seating for 1,530 users. It offers an open stack arrangement and an extensive range of library services. In addition to the main collection, which is comprised primarily of humanities and social sciences subject areas, the Hillman Library is comprised of seven other libraries and collections, maps, national, and international newspapers, and microform facilities.

PITTCAT is the University of Pittsburgh's online library catalog, offering author, title, subject, and keyword access to materials in all University libraries. PITTCAT currently contains bibliographic holdings and circulation information for more than three million titles, representing most of the book and periodical collections in all University libraries. In addition, the University libraries provide access to many remote resources for University of Pittsburgh faculty, students, and staff, including Digital Dissertations, EBSCOhost, InfoTrac, CIS Compass, MUSE, JSTOR, Science Direct, Web of Science, netLibrary, and numerous other electronic journals. PITTCAT and the other databases are available through the ULS Web site at <http://www.library.pitt.edu>.

BARCO LAW LIBRARY

The Barco Law Library, occupying three floors of the five-story Law School Building, is available to anyone needing to use its resources for legal research purposes. Likewise, the Government Document collection is available for use by the public at large. Call (412) 648-1323 for more information or see the library's Web site at <http://www.law.pitt.edu/library>.

HEALTH SCIENCES LIBRARY SYSTEM

The Health Sciences Library System (HSLs) at the University of Pittsburgh is comprised of three distinct libraries that support the educational, research, patient care, and service activities of the schools of the health sciences (**Medicine, Dental Medicine, Pharmacy, Health and Rehabilitation Sciences, Nursing, Public Health**) and the UPMC Health System. This library system includes the Falk Library, the Nursing Collection in the Learning Resources Center of the School of Nursing, and the Western Psychiatric Institute and Clinic (WPIC) Library.

Falk Library of the Health Sciences serves as the flagship of the HSLs. It is located on the second floor of Scaife Hall. The library houses

10 UNIVERSITY OF PITTSBURGH

more than 300,000 print volumes and receives approximately 2,000 journal subscriptions. The Falk Library collection also includes a special History of Medicine collection. In addition to the library's print collection, the Computer and Media Center (CMC) includes videotapes, audiotapes, more than 100 public computers, and over 300 microcomputer software packages.

WPIC Library is one of the world's most comprehensive resources in psychiatry and the behavioral sciences, with approximately 70,000 books, 420 journals, and 600 audio tapes. The WPIC Library collection also includes 550 videotapes held at the Benedum Audiovisual Center. The Nursing Library is located on the second floor of Victoria Hall and includes about 10,000 books and 150 journal titles.

HSL Online, a digital clinical library, offers access through the World Wide Web to current biomedical databases, full-text journals, major full-text clinical and subspecialty textbooks, clinical practice guidelines, and current drug and toxicology information. HSL Online includes the following databases and information services: MEDLINE, AIDSLine, CancerLit, Bioethicsline, HealthStar, CINAHL, PsycINFO, Evidence-Based Medical Reviews, Micromedex, MDConsult, STAT!Ref, Harrison's Principles of Internal Medicine, Lippincott's Primary Care Online, and Scientific American Medicine Online.

For information about the Health Sciences Library System and its resources, or to access HSL Online, see <http://www.hsls.pitt.edu/>, or E-mail medlibq+@pitt.edu.

COMPUTING SERVICES AND SYSTEMS DEVELOPMENT

CONTACT INFORMATION

728 Cathedral of Learning
Phone: (412) 624-4357
Web site: <http://technology.pitt.edu/>

Computing Services and Systems Development (CSSD) is the comprehensive service center for the University of Pittsburgh's computing support and systems development environment. A number of those services provided by CSSD are detailed below. For a full discussion of CSSD's services, consult the Web page listed above.

CAMPUS COMPUTING LABS

CSSD operates six primary computer labs on the Pittsburgh campus, providing students with access to Intel, Macintosh, and UNIX workstations and an array of software applications needed to fulfill the demands of students' academic endeavors. The six computing labs are located at 1077 Benedum Hall, G27/G62 Cathedral of Learning, 1E01 Posvar Hall, First Floor Hillman Library, 230 David Lawrence Hall, and C114 Sutherland Hall. The 230 David Lawrence Hall lab is open 24 hours a day, seven days a week. For hours of operation for all campus computing labs, please call (412) 624-5061.

NETWORK AUTHORIZATION ACCOUNTS

All enrolled students are eligible for a network authorization account (NAA). The NAA will permit a student to establish a user ID and a password to provide access to the University's network resources, a Mulberry E-mail account, the Internet/WWW, the University Library System's PITTCAT system, and a printing allowance at the campus computing labs. All students who wish to use the University computing resources, including the ability to access their schedules and grades online or to shop at the e-Store, must have a network authorization account. Accounts are issued at any of the campus computing labs. Password re-set and other account modifications must be made

between 8:30 a.m. and 5:00 p.m. at the Accounts Office at the 230 David Lawrence Hall lab. Please contact the CSSD Help Desk at (412) 624-HELP (624-4357) for assistance with accounts.

NETWORK PORT CONNECTIVITY

Students can access the University's network from home with their network authorization account and a modem through the remote access modem pool. Please contact the CSSD Help Desk at (412) 624-HELP (624-4357) for assistance.

COMPUTER CONSULTING SERVICES

CSSD has a staff of skilled information technology (IT) professionals who are available to help troubleshoot problems 24 hours a day, seven days a week. CSSD consultants are available to help with problems such as network connectivity, software difficulties, or even hardware malfunctions. Please call the CSSD Help Desk at (412) 624-HELP (624-4357) for assistance.

COMPUTER SALES AND DIGITAL CERTIFICATION

University of Pittsburgh students, faculty, and staff have access to the e-Store, an online retail provider of hardware, software, and peripherals, for their computing needs. Shopping at the e-Store requires a network authorization account and a digital certificate ID. Please see the e-Store's Web site at <http://e-Store.pitt.edu/> for University-recommended computer systems and for instructions on obtaining a digital certificate. Call the CSSD Help Desk at (412) 624-HELP (624-4357) for more information.

COMPUTING WORKSHOPS AND TRAINING

CSSD offers Quickstart classes, a series of short courses designed to orient new and experienced users to the University's network, the Mulberry E-mail environment, and the selection of software applications available in the campus computing labs. CSSD also offers a selection of Java and Microsoft certification courses for students. For additional information and a schedule of classes, please see the CSSD Workshop site at <http://www.pitt.edu/~workshop> or call the CSSD Help Desk at (412) 624-HELP (624-4357).

NETWORK SERVICES

The Network Services area of CSSD is responsible for the development and maintenance of the University's information technology network supporting voice, video, and data. The backbone of the University-distributed computing services is PittNet, a network based on Ethernet technology that serves the diverse communications needs of the entire University community. For additional information, please see the Network Services site at <http://technology.pitt.edu/network/index.html> or call (412) 624-4357.

RESEARCH AND ACADEMIC SUPPORT

A number of centers at the University support teaching, research, and academic skills for graduate students in a variety of fields. Those centers are detailed below in alphabetical order.

CENTER FOR BIOTECHNOLOGY AND BIOENGINEERING

The Center for Biotechnology and Bioengineering is a leading center for research in biology and bioengineering. The center's headquarters, a new 80,000 square foot building located in a high-technology business park near the University, houses 100 researchers actively pursuing projects in the center's main programs in applied enzymology, cell culture, biomaterials, gene therapy, and artificial organs. The center's goals include training new generations of scientists; accelerating the process of innovation in biotechnology and

bioengineering; and providing assistance to the industrial community through industrially supported applied projects.

For more information on the center, call (412) 383-9700 or see the center's Web site at <http://www.pitt.edu/~biotech/>.

CENTER FOR INSTRUCTIONAL DEVELOPMENT & DISTANCE EDUCATION (CIDDE)

The Center for Instructional Development & Distance Education (CIDDE) was established to strengthen the instructional development and support services available to faculty and teaching assistants. The Center enables faculty to identify and use technology and other instructional resources available to them.

CIDDE provides faculty and teaching assistants with a primary contact point for many of the instructional services they need, and it also assists in developing and supporting distance education programs and courses. CIDDE also hosts an orientation for new TAs each fall and provides ongoing training seminars for teaching assistants wanting to develop their teaching skills. For more information, visit CIDDE at 4227 Fifth Avenue (Masonic Temple), call (412) 624-3335, or visit CIDDE's Web site at <http://www.pitt.edu/~ciddeweb/>.

CENTER FOR PHILOSOPHY OF SCIENCE

The Center for Philosophy of Science promotes scholarship and research, encourages scholarly exchanges, and fosters publications in the philosophy of science as well as in the philosophically informed history of science and related fields. The center is dedicated to bridging the gulf between the sciences and the humanities by helping to develop and disseminate a philosophical understanding and appreciation of the sciences. The center pursues its mission not only locally and regionally, but also nationally and internationally. The center sponsors a visiting fellows program, an annual lecture series, a number of colloquia and workshops, and a variety of other programs. Like other centers at the University of Pittsburgh, the Center for Philosophy of Science is a unit for research rather than teaching. For more information on the center, visit the center in room 817 of the Cathedral of Learning, or on the Web at <http://www.pitt.edu/~pittcntr/>.

ENGLISH LANGUAGE INSTITUTE

The English Language Institute (ELI) provides credit-bearing English as a Second Language (ESL) courses for students admitted to the University's degree programs, as well as intensive instruction in ESL for people who need to meet proficiency requirements to enter a university. Credit courses are offered in speaking, writing (including the research paper), and reading/vocabulary. Through the **School of Engineering**, a technical writing for ESL graduate course is provided. During the summer, the ELI offers five-week ESL programs for students entering MBA and MPIA graduate programs. Non-credit courses cover reading, writing, listening, speaking, and grammar. For more information, call (412) 624-5901, E-mail elipitt+@pitt.edu, stop by room 2816 Cathedral of Learning, or visit the Institute's Web site at <http://www.eli.pitt.edu>.

INSTITUTIONAL REVIEW BOARD

The Institutional Review Board (IRB) is charged with overseeing and approving all research at the University involving humans as subjects. For more information on the IRB's policies and practices, call (412) 692-4370 or see the IRB's Web site at <http://www.ofres-hs.upmc.edu/irb/irb.htm>.

LEARNING RESEARCH AND DEVELOPMENT CENTER (LRDC)

The Learning Research and Development Center (LRDC) is a multidisciplinary research center whose mission is to understand and

improve learning by children and adults in the organizational settings in which they live and work: schools, museums, and other informal learning environments, and workplaces.

Fields of research include: processes of learning; learning in schools and museums; education improvement; education policy and practice; learning and technology; and learning and work. For more information, visit the center's Web site at <http://www.lrdc.pitt.edu>.

LEARNING SKILLS CENTER

The Learning Skills Center (LSC) offers free learning support services for University of Pittsburgh students, staff, and faculty. The math component provides tutoring for the University's introductory math courses and individual consultation for improving study strategies and confidence in math. Individual and group study skills services are available through the study skills component. In the study skills workshop, students learn, discuss, and practice strategies for improving textbook reading, lecture note taking, memory, time management, and test performance. Individual appointments can also be made for general study skills, for suggestions on how to study specific subjects, or for help in reducing test anxiety.

Supplemental Instruction groups are conducted by the LSC for traditionally difficult introductory courses to give students the opportunity to learn and practice effective study strategies while studying the content of the course. The reading component provides diagnostic services, individualized programs in comprehension and vocabulary, and speed reading workshops.

For more information, contact the center at (412) 648-7920, room 311 William Pitt Union (open Monday through Friday from 8:30 a.m. to 5:00 p.m. and some weekday evenings), or see <http://www.lsc.pitt.edu>.

OFFICE OF MEASUREMENT AND EVALUATION OF TEACHING (OMET)

The Office of Measurement and Evaluation of Teaching (OMET) provides services to the University community related to student evaluation of teaching, the scoring of objective classroom tests, the administration of paper-and-pencil and computer-based admission and certification examinations, and consultation regarding research design and analysis. Instructors teaching a class, lab, or recitation can receive student feedback about their teaching by completing a request form that is available in both their respective departments and in G-39 CL (call 624-6147 for information). Information about test scoring and administration is available in G-33 CL (call 624-6440). OMET's Web site is located at <http://www.pitt.edu/NewPittInfo/omet.html#stu>.

OFFICE OF RESEARCH

The Office of Research is charged with administrative responsibility for all University research and related activities involving extramural sponsorship. The Office of Research serves as both a center of advocacy for research and related activities and a facilitator of the research environment. The functional areas supported by Office of Research staff include information services on potential sources of funding, project and proposal development assistance, and grants and contracts administration for both pre-award and selected post-award tasks. All funding proposals submitted by University personnel must be transmitted to and reviewed by Office of Research staff to assure adherence to internal and external policies and procedures. For more information on the office's services, call (412) 624-7400, visit 350 Thackeray Hall, or see <http://www.pitt.edu/~offres/>.

UNIVERSITY CENTER FOR INTERNATIONAL STUDIES (UCIS)

The University Center for International Studies (UCIS) is the central coordinating and support mechanism for the international activities of the University of Pittsburgh. As a University-wide center, UCIS supports multidisciplinary programs of research and instruction in international and area studies, linking departments and schools of the University. It connects the University with private and public sector institutions, other universities, and institutions in other countries to strengthen the University's international dimension of teaching, research, and public service. UCIS aids students in their acquisition of international knowledge through certificate programs, study abroad programs, curriculum developments, and seminars; assists faculty in their international research, teaching, and service; and develops and manages international programs and projects. The center offers graduate certificate programs through its four area studies centers (Asian Studies, Latin American Studies, Russian and East European Studies, and West European Studies), all of which are designated by the federal government as National Resource Centers. Area studies certificates give evidence of language proficiency and area knowledge, which students find useful for international careers or for advanced degrees with a focus in a particular world area.

For more information, contact UCIS at 4G Posvar Hall, (412) 648-7390, or <http://www.ucis.pitt.edu/index.html>.

UNIVERSITY CENTER FOR SOCIAL AND URBAN RESEARCH (UCSUR)

Established in 1972 to carry out basic and applied social science research, the University Center for Social and Urban Research (UCSUR) is a focal point for collaborative interdisciplinary and multidisciplinary studies. Faculty from the University's **Faculty of Arts and Sciences** and the professional schools participate in UCSUR's research programs. More than 60 federal, state, and local agencies, and foundations support the basic and applied research of the Center.

UCSUR is the major survey research facility at the University of Pittsburgh. The center provides opportunities for faculty collaboration in the development of research projects. It also provides state-of-the-art survey research facilities and other services to assist in formulating and executing research projects; information and technical services for local governments, community groups, and educational institutions; and primary and secondary data acquisition and analysis.

UCSUR is a Pennsylvania State Data Center research affiliate responsible for helping local academic institutions, businesses, governments, and other organizations in Southwestern Pennsylvania access and analyze U.S. Bureau of the Census data.

For more information on UCSUR, call (412) 624-5442 or see <http://www.pitt.edu/~ucsur/>.

WRITING CENTER

The Writing Center, located in the University's English department, offers tutoring assistance for students who need help with their writing in any class. Tutors will help solve writing problems with students but will not edit or write text. Students may drop in any time, but it is best to call for an appointment. The Writing Center is open Monday through Friday and also has some evening hours. For more information, call (412) 624-6556, stop by room 501 Cathedral of Learning, or see <http://www.pitt.edu/~englweb/writecent.html>.

SERVICES FOR NEW TEACHING ASSISTANTS

The University has a variety of support mechanisms for new teaching assistants to help them develop and improve their teaching skills. Each fall, the Center for Instructional Development & Distance Education (CIDDE) hosts an orientation for new TAs. The program includes required workshops led by experienced TAs and faculty on promoting academic integrity and creating an inclusive classroom. Elective workshop topics address issues such as teaching in labs, teaching recitations, and dealing with difficult situations. A panel of professors and students describe the University's undergraduate population to new TAs. For registration information, call (412) 624-6671. CIDDE also publishes a Teaching at Pitt handbook that includes helpful information for new TAs.

Also, CIDDE and the Office of Measurement and Evaluation of Teaching (OMET) provide further training and evaluation for teaching assistants (*see above for detail on CIDDE and OMET*).

HOUSING

Pittsburgh has a number of pleasant residential neighborhoods with private homes that have been converted to apartments. Many graduate and professional students live in Oakland, where the University is located, or in the surrounding neighborhoods of Shadyside, Squirrel Hill, Highland Park, and Mount Washington. All of these areas are within walking distance or easy commuting distance of the University. Public bus transportation is widely available and is free (inside Allegheny County limits) to University students.

Ruskin Hall is the only residence hall on campus for graduate students. It is designated as living space for graduate students studying medicine, law, or other health-related professionals. Students interested in Ruskin Hall should contact the Property Management Department (*see below*).

HOUSING RESOURCE CENTER

The Housing Resource Center provides assistance to students, staff, and faculty in identifying, renting, leasing, or purchasing suitable living accommodations. The Housing Resource Center provides the following: information on University-owned apartments; an apartment-roommate matching service; a sublet service; maps of Pittsburgh and surrounding areas; rental tips; campus shuttle schedules; free local telephone service to contact landlords; and listings of apartments inspected and approved by the City of Pittsburgh. Call (412) 624-6998, visit the office at 127 North Bellefield Street, or see <http://www.pitt.edu/~property/hrc.html>.

PROPERTY MANAGEMENT

The Department of Property Management manages several off-campus apartment buildings near the University for students, faculty, and staff. For more information on the buildings and how to make a rental application, call (412) 624-9900, visit the office at 127 North Bellefield Avenue, or see <http://www.pitt.edu/~property/pm.html>.

STUDENT RESOURCES

The University is committed to providing a high quality of life for its students and towards that end supports a variety of offices and activities designed to aid students in realizing their potential and having a fulfilling campus life.

AFFIRMATIVE ACTION

In addition to its work with developing, implementing, and monitoring the University's affirmative action program, the Office of Affirmative Action is responsible for receiving, investigating, and mediating complaints from any members of the University community who believe they have been discriminated against or harassed on the basis of their race, color, religion, national origin, ancestry, sex, age, marital status, familial status, sexual orientation, disability, or status as a disabled veteran or a veteran of the Vietnam era. Individuals may request information and advice anonymously if they wish. The privacy of all parties will be respected. The office is located in room 901 of the Cathedral of Learning and the phone is (412) 648-7860. See <http://www.hr.pitt.edu/general/Affirm.htm> for further information on the office's services and the University's affirmative action policy.

ATHLETICS

The University offers a variety of opportunities for students to participate in athletics on the intramural and club levels as well as on-campus facilities for group sports and individual exercise.

VARSITY SPORTS

The University offers nine varsity sports each for men (baseball, basketball, cross country, diving, football, soccer, swimming, indoor and outdoor track, and wrestling) and women (basketball, cross country, diving, gymnastics, soccer, swimming, tennis, indoor and outdoor track, and volleyball). For tickets, scheduling, or other information about these sports, call (412) 648-8200 or visit the Pittsburgh Panthers Web site at <http://www.pittsburghpanthers.com>.

INTRAMURAL AND CLUB SPORTS

New outdoor playing fields are available behind the renovated Cost Sports Center. Call (412) 648-8210 for more information or visit the intramural program's Web site at <http://www.pitt.edu/~soeforum/hpred/intramurals/Imexperi.html>.

Sports clubs offer participation in a wide array of sports such as cycling, crew, hockey, and rugby. Contact the Student Organization Resource Center at 119 William Pitt Union, (412) 624-7116 for a complete list of sports clubs, or visit the club site at <http://www.education.pitt.edu/intramurals/>.

SPORTS FACILITIES

There are a variety of sports facilities available for use by individuals and groups. In Trees Hall, there are two swimming pools (call 412-648-8210 for pool information), a weight room, and courts for basketball, racquetball, handball, and squash. The Fitzgerald Field House also has two basketball courts and a 220-yard indoor track (call 412-648-8213 for schedule of available times). The Cost Center has nine indoor tennis courts, and fitness centers are available at Bellefield and Lothrop Halls. Bellefield Hall also has a swimming pool. The new Convocation and Events Center, scheduled to open on the Pitt Stadium site in 2001, will house a large student recreation and fitness center, among other amenities.

BOOK CENTERS

The University owns and operates two bookstores on campus: the Book Center and the Health Book Center. The Book Center, located at 4000 Fifth Avenue, carries textbooks for most University courses, as well as a general book selection, school supplies, and sundries such as art supplies, stationery, greeting cards, and calendars. Call (412) 648-1455 or see <http://www.pitt.edu/~bookctr/> for more information. The Health Book Center, located at 3527 Forbes Avenue, carries all course books for the **Schools of Medicine, Dental Medicine, Health & Rehabilitation Sciences, Nursing, Pharmacy, and Public Health**. Call (412) 648-8915 or see <http://www.pitt.edu/~bookctr/hbc.htm> for more information.

CHILD CARE

The University Child Development Center provides care and early childhood education to children of faculty, staff, and students of the University of Pittsburgh. Children range in age from six weeks through six years and participate in a wide range of programs that include full- and part-time infant, toddler, and preschool options and full-day kindergarten. There is a school-age summer program as well. The center serves the University as a laboratory school and the greater community as a model of early childhood excellence. There is a lengthy waiting list and prospective parents are encouraged to put children on that list as soon as possible. It is acceptable to put an unconceived child on the list in the interest of prudent planning. The Center is located at 635 Clyde St. and is open from 7:00 a.m. to 6:00 p.m., Monday through Friday. For more information, call (412) 383-2100 or see <http://www.hr.pitt.edu/ucdc/child.html>.

COUNSELING CENTER

The University Counseling Center provides free, confidential services to all students. The staff consists of psychologists, psychiatrists, and career counselors. Services include individual counseling, group counseling and the Career Resource Center. Students may come to the center for assistance with problems of an emotional, social, marital, academic, or career nature. The Center is located in room 334 of the William Pitt Union and is open year-round from Monday through Friday from 9 a.m. to 5 p.m., with additional hours from 6:00 p.m. to 9:00 p.m. on Monday nights during the Fall and Spring Terms. Call (412) 648-7930 for an appointment or see <http://www.pitt.edu/~counsel> for more information.

DISABILITY RESOURCES AND SERVICES

The Office of Disability Resources and Services (DRS) provides a broad range of support and services to assist students with disabilities. Services include, but are not limited to, the following: tape-recorded textbooks, sign language interpreters, adaptive computer technology, Braille copy, and non-standard exam arrangements. DRS can also assist students with accessibility to campus housing and transportation. Contact the DRS at (412) 648-7890 (voice or TDD) in room 216 of the William Pitt Union, or see <http://www.pitt.edu/~osaweb/drs/drs.html> for more information.

FOOD SERVICES

The Department of Food Services operates several cafeterias and food courts on campus and administers a meal plan for students, including graduate and professional students. Cafeterias or food courts are located in the following University buildings: Tower A, Tower C, William Pitt Union, Cathedral of Learning, Sutherland Hall, Mervis

14 UNIVERSITY OF PITTSBURGH

Hall, Benedum Hall, and Posvar Hall. Call (412) 648-2164 or see <http://www.pitt.edu/~food/> for more information.

The University of Pittsburgh Medical Center also operates a cafeteria on the 11th floor of Scaife Hall.

HEALTH CARE AND STUDENT HEALTH SERVICE

All full-time students pay a Student Health Fee each term to cover a variety of services at the Student Health Service, which is located in Suite 500, Medical Arts Building, 3708 Fifth Avenue. The Student Health Service is a multi-service healthcare facility that offers outpatient clinical services, gynecology, and family planning, as well as comprehensive health education programs. Call (412) 383-1800 or see <http://www.pitt.edu/~studhlth> for more information.

The University of Pittsburgh Pharmacy, located in the same suite as the Student Health Service, offers over-the-counter and prescription medication, often at lower prices than available elsewhere. Call (412) 383-1850 or see <http://www.pitt.edu/~pittrx> for more information.

Students should have health insurance to protect themselves in the event of illness or injury. Also, some schools may require students to carry insurance as a condition of their enrollment, particularly when students may be in contact with blood-borne pathogens. A direct pay medical insurance plan, underwritten by MEGA Life and Health Insurance Company, is available to students registered at the University for three or more credits. While not a full-coverage plan, this plan is designed to provide a student's basic health care needs, including services not offered at the Student Health Service such as hospitalization and emergency care. Students may enroll in the MEGA plan only during certain enrollment periods. Applications, enrollment deadlines, and further information on the plan are available at the Student Health Service, Suite 500, Medical Arts Building, 3708 Fifth Avenue, Pittsburgh, PA 15260, (412) 383-1800, or by contacting the Office of Risk Management at (412) 624-0621.

Teaching Assistants, Teaching Fellows, Graduate Student Assistants, and Graduate Student Researchers with eligible academic appointments are currently eligible to enroll in a managed care plan. The University will cover the cost of this insurance for these eligible graduate students. Coverage is available for eligible spouses and dependents by paying the difference between the individual and dependent options through a monthly payroll deduction. Students supported by fellowships and traineeships may be eligible to purchase membership in this insurance plan by paying the full cost of the coverage through a monthly deduction.

ID CENTER

Every student, faculty, and staff member at the University must get an ID card from the ID Center, located in room 107 McCormick Hall. The PittCard is used to access a variety of campus buildings and to take advantage of on-campus services, including libraries, computer labs, student discounts, and the like. The card also affords access to off-campus benefits such as free bus rides on Port Authority Transit (*see Parking and Transportation*).

To obtain a PittCard, students must have registered for classes, and must present some form of photo identification, such as a driver's license or passport. If a student does not have any photo identification, several forms of signature ID, such as credit or bank cards or a social security card must be presented. Students may also use a birth certificate as a form of non-photo identification.

There is no charge for the initial PittCard. However, there is a \$20 replacement fee for lost, stolen, or damaged cards. Call (412) 624-7643 (624-7632 after hours) or see <http://www.pitt.edu/~idcenter/index.html> for more information.

INTERNATIONAL SERVICES

The Office of International Services provides services on matters relevant to international students and scholars. Among the services provided are the evaluation of foreign academic credentials for applicants to the University of Pittsburgh with education outside the United States; the issuance of visa documents; orientation for new international students; counseling on personal, social, and financial matters; information and advising on regulations of the Immigration and Naturalization Service and other government agencies, as well as the processing of documents for enrolled international students for travel and employment. To contact the Office of International Services, phone (412) 624-7120, fax (412) 624-7105, or E-mail ois@pitt.edu. The office's mailing address is Office of International Services, 708 William Pitt Union, University of Pittsburgh, Pittsburgh, PA 15260-5071.

PARKING AND TRANSPORTATION

The University provides a variety of parking and transportation services, both on and off campus, some of which are detailed below. For more complete information, call the University Department of Parking, Transportation, and Services' 24-hour hotline at (412) 624-8800 or see <http://p-and-t.parktran.pitt.edu/>.

PARKING SERVICES

A limited number of parking permits are available for graduate and professional students living in Ruskin Hall and for those students who commute from off-campus. Permits are sold on a first-come, first-served basis. Daily student commuter parking is also available in several lots located throughout the campus. No permit is required for these facilities; charges are based on daily or hourly rates. Commuter students may also purchase parking permits at the Center for Biotechnology and Bioengineering, an off-campus lot connected to main campus by a shuttle. Evening/weekend student parking permits are available to those who do not need to park until after 3:50 p.m. on weekdays. For more information, contact the Parking Office, 204 Brackenridge Hall, (412) 624-4034.

RIDESHARING

Daily commuter students can save money by sharing a ride with other students. A free, computerized matching service is available to find names and phone numbers of others interested in sharing a ride. Call (412) 624-0687 for more information.

PITTSBURGH CAMPUS TRANSPORTATION SYSTEM

University of Pittsburgh students may ride all of the Pitt buses and shuttles for free by showing a valid University ID. In addition, students are permitted two guest riders (space permitting). Buses and shuttles normally have a 25- to 35-minute route. Detailed maps and time schedules are available in the lobbies of many campus buildings, libraries, and residence halls.

VAN CALL

An on-call Van Call is available from 7 p.m. until 3 a.m. Sunday through Wednesday, and from 7 p.m. until 5 a.m. Thursday through Saturday, to transport students from campus to a residence or from a residence to campus. This service is only available for those not on a fixed shuttle route and within the following area around the campus: South—Second

Avenue/Center for Biotechnology and Bioengineering parking; North—Baum Boulevard; West—Robinson/Craft Avenue; and East—Morewood Avenue. Van Call will also pick up students at the downtown Greyhound bus station on Sundays only. Students may call (412) 624-1700 to have the on-call van dispatched to their location.

PORT AUTHORITY

University of Pittsburgh students may ride any Port Authority bus, incline, or trolley within Allegheny County for free by showing their valid University ID card. Port Authority bus schedules are available at the Transportation Office in Forbes Pavilion, the Parking Office at Brackenridge Hall (room 204), and in the lobby of the William Pitt Union.

BICYCLE REGISTRATION PROGRAM

Registration of bicycles is recommended as a deterrent to theft, to help in the identification of lost or stolen bicycles, and to help the Department of Parking, Transportation, and Services better accommodate cyclists at the University. Registration is free. Bicycle rack parking is also free. Bicycle parking maps, regulations, and safety tips are available from the department. Bicycle lockers may be rented for \$40 per term, plus a \$10 refundable locker key deposit. Call (412) 624-0687 for more information.

PITT ARTS

PITT ARTS is a program designed to provide the University's students with access to and information about the many cultural institutions in Pittsburgh. The program's Web site gives information about a wide range of events in music, film, theater, visual arts, lectures, museums, and other cultural programming both on campus and in the city at large; it also provides information about volunteering for different cultural organizations in the city. PITT ARTS has programs designed for both resident and commuting students, including providing free access during the Fall and Spring Terms for all University students with a valid ID to several museums in Oakland: Phipps Conservatory and the Carnegie Museums of Art and Natural History.

PITT ARTS and the Department of Parking, Transportation, and Services also sponsor the Cultural Bus for the convenience of Pitt students every Sunday through the Fall and Spring terms. The Cultural Bus (number 17U) departs from the William Pitt Union, on Bigelow Boulevard, beginning at 12:00 noon. The 17U Cultural Bus takes students to some of Pittsburgh's key cultural destinations, including the Andy Warhol Museum, Heinz Hall, the Senator John Heinz Regional History Center, the Mattress Factory, and the Carnegie Science Center. Schedules are available at the William Pitt Union Parking Office (204 Brackenridge Hall), and Transportation Office, 3525 Forbes Avenue, and online at the Parking and Transportation Web site: <http://p-and-t.parktran.pitt.edu/>.

For more information, visit PITT ARTS at <http://www.pitt.edu/~pittarts/>.

PLACEMENT SERVICE

Graduate and professional students should consult with their faculty mentors as well as departmental, program, or school placement services as their primary source for guidelines on career development specific to their discipline. As a secondary resource, the University Placement and Career Services, though mainly designed to assist undergraduates, has a variety of services that may be of use to graduate and professional students.

Placement and Career Services is designed to work with students at each step of the Pitt Pathway, a developmental model for career planning and implementation. Specific services that assist students in implementing their plan and beginning their job search include an on-campus recruiting program, a resume referral service, current job postings posted on the Web site and on job boards, and use of an alumni volunteer database entitled AlumNet. Placement and Career Services helps students establish contact with employers in the fields of business, government, health care, education, industry, and private research. A credential service maintains letters of recommendation files that are sent at the request of the student to prospective employers and graduate schools. PCS also maintains a part-time/summer job database for students interested in temporary or part-time work on and off campus. For more complete information on services provided by Placement and Career Services call (412) 648-7130, stop by room 224 William Pitt Union, or see <http://www.placement.pitt.edu>.

PUBLIC SAFETY

The Department of Public Safety provides police and security services to the University community. For emergency calls dial 811 from on-campus phones or (412) 624-2121 from off-campus phones. The University of Pittsburgh Police Department's main headquarters is located in G1N30 Posvar Hall. For general information calls (non-emergency), dial (412) 624-4040. For more information on the Department of Public Safety, see <http://www.pitt.edu/~police/>.

SEXUAL ASSAULT SERVICES

The Office of Sexual Assault Services provides individual and group counseling designed to alleviate the trauma associated with sexual assault and sexual harassment. University of Pittsburgh students who have been sexually assaulted or who have experienced some form of sex discrimination are eligible for services. Emergency, medical, legal, and police support are provided. Students are assisted in negotiating course schedule or room changes and in obtaining medical, legal, and counseling resources available to them within the University and local communities.

The peer education program is an integral component of Sexual Assault Services. P.E.E.R.S. (Peer Educators for an Environment Free of Rape and Sexual Exploitation) is a volunteer student outreach program whose mission is to create an awareness of the dynamics of sexual assault on the Pitt campus, promote healthy relationships and effective communication, and reduce the occurrence of sexual victimization.

For more information, call (412) 648-7856, visit 926 William Pitt Union or see <http://www.pitt.edu/~saserv>, or call (412) 648-7844.

STUDENT GOVERNMENT

The Graduate and Professional Student Association (GPSA) is the official umbrella graduate and professional student organization at the University of Pittsburgh. GPSA is made up of graduate student organizations (GSOs) from each of the schools at the University. The purpose of GPSA is to represent both the academic and non-academic interests of all graduate and professional students and to provide student-initiated and student-controlled services. GPSA coordinates efforts with graduate student organizations from the different University graduate and professional schools and provides graduate student representation on key University-wide committees. The GPSA also has a limited amount of funding to support student scholarship, including funding for student travel to academic conferences, for

interlibrary loans, and for academic programs sponsored by individual schools within the University. For more information, see the GPSA Web site at <http://www.pitt.edu/~gpsa2>.

STUDENT ORGANIZATIONS

Over 250 certified student organizations provide a myriad of opportunities for extracurricular activity. In addition to student government, media, publications, and programming organizations, there are clubs for sports, recreation, performing arts, politics, religion, service, professional and academic pursuits, ethnic and cultural enrichment, and many other specialized interests. A complete list of certified student organizations is available from the Office of Student Activities (140 William Pitt Union, 412-648-7830, or see <http://www.pitt.edu/~studact/>).

SURVIVAL SKILLS AND ETHICS PROGRAM

The Survival Skills and Ethics Program sponsors a series of monthly workshops and activities designed to help train graduate and professional students in the skills necessary for success during and after their time at the University. These skills include the ability to communicate both orally and in writing, to learn and teach, to obtain and keep a job, to manage stress and time, and to behave responsibly. Graduate and professional programs often do not provide comprehensive training in all of these areas; the Survival Skills & Ethics Program encourages the development of mechanisms for assisting graduate and professional students in developing these skills.

For more information on workshops and other services provided by the program, call (412) 624-7098, visit 4K57 Posvar Hall, or see <http://www.pitt.edu/~survival/>.

VETERANS SERVICES

The staff of the Office of Veterans Services assists veterans, war orphans, and veterans' dependents in obtaining and using their VA educational benefits. In addition to these services, the office implements the VA work-study program. The staff serves as the veterans' representative with the University, the Veterans Administration, and other related agencies. The office is located in room G-3 of Thackeray Hall. Call (412) 648-7885 or see <http://www.pitt.edu/~srfswweb/vetPgVetServ.htm> for more information.

WILLIAM PITT UNION

The William Pitt Union, built just over 100 years ago as the Schenley Hotel, has been extensively remodeled and renovated. The union is located across Bigelow Boulevard from the Cathedral of Learning and serves as the focal point for campus activities, student organizations, and the Division of Student Affairs. The union features a recreation center, arcade, food service, information service, art gallery, TV room, dance studio, lounges, meeting rooms, student organization offices, ticket office, dining rooms, and several multi-use spaces for programs. To reach the union's information desk, call (412) 648-7815.

GENERAL ACADEMIC REGULATIONS

ADVISING

The quality of education that graduate students receive is greatly enhanced with good academic advising at all stages of their program. Given the diversity of these needs, each school and program must determine the best way to provide these services. Each program should have a document describing its view of good graduate advising practices and a clear policy on how good graduate advising is assessed and rewarded. For more information on academic advising at the graduate level, see Elements of Good Academic Advising at <http://www.pitt.edu/~provost/advising.html>.

Students are encouraged to consult with the individual school for school-specific advising services. In addition, the online *Schedule of Classes* can be a useful advising tool (see <http://www.pitt.edu/~srfsweb/crseinPgCrInfo.htm>) in planning a course of study.

ALLOWABLE CREDITS

There are certain limitations on the credits that can be earned towards a graduate degree at the University of Pittsburgh. Those limitations are detailed below.

ACCEPTANCE OF TRANSFER CREDITS

Students who have completed graduate courses in degree-granting graduate programs at other accredited institutions prior to admission to the University of Pittsburgh should submit official transcripts from those institutions at the time they apply so that the courses can be evaluated for transfer credit. In no case may the total number of credits transferred exceed the maximum number stated in the sections of this bulletin pertaining to advanced degree requirements. *For more detail, see credit requirement information in the sections on Regulations Pertaining to Master of Arts and Master of Science Degrees, Professional Master's Degrees, or Doctoral Degrees as well as the relevant program information in Schools, Departments, and Programs.* Grades (and quality points) are not recorded for credits accepted by transfer.

Transfer credits will not be accepted for courses in which a grade lower than B (QPA=3.00) or its equivalent has been received. No credit will be granted toward an advanced degree for work completed in extension courses, correspondence courses, courses delivered electronically, or those offered in the off-campus center of another institution unless those courses are approved for equivalent graduate degrees at that institution and the institution has an accredited program.

The completion of requirements for advanced degrees must be satisfied through registration at the Pittsburgh campus of the University of Pittsburgh. Graduate students already enrolled may, when approved in advance by their department and the dean, spend a term or more at another graduate institution to obtain training or experience not available at the University of Pittsburgh and transfer those credits toward the requirements for an advanced degree at the University of Pittsburgh. In such instances, neither the University nor any of its

components is responsible for providing any financial assistance to the graduate student.

COURSE WORK ACCEPTABLE AS GRADUATE CREDIT

A substantial proportion of courses acceptable toward a graduate degree should be designed explicitly for graduate students. Introductory graduate-level (master's-level) courses are numbered 2000-2999, and those at an advanced graduate-level (doctoral-level) are numbered 3000-3999. To be eligible for a master's degree, a student must have completed at least four courses (12 credits) or one-half the total number of credits submitted for the degree, whichever is greater, at the graduate-level (2000 or 3000 series). Doctoral students must complete additional graduate-level courses as determined by his or her department or school. No lower-level undergraduate courses numbered 0001-0999 may be applied toward a graduate degree.

CREDIT BY COURSE EXAMINATION

Some schools at the University offer credit by course examination. Each school authorized to offer graduate courses clearly specifies in its section of this bulletin whether or not students may obtain credit toward a degree in this fashion and, if so, for which courses. A school granting graduate credit for life or work experience will do so only through the option of credit by examination.

CROSS REGISTRATION CREDITS

Students may register for graduate courses at Carnegie Mellon University, Duquesne University, the Pittsburgh Theological Seminary, and Robert Morris College under the Pittsburgh Council on Higher Education (PCHE) cross registration agreement. Such work, if approved in advance by the student's advisor, will not be considered as transfer credit and may be counted for credit toward a graduate degree; the grade earned will be used in computing the student's quality point average. *See also Cross Registration in Registration section of this bulletin.*

ENROLLMENT IN GRADUATE COURSES AS AN UNDERGRADUATE

University of Pittsburgh undergraduate students with sufficient preparation are permitted to enroll in certain graduate courses at the University following procedures determined by each school. The graduate credits earned may be counted toward the undergraduate degree if approved by the student's school. These may not be counted as credits toward a graduate degree except as noted below.

Undergraduate students who need fewer than 15 credits to complete requirements for the baccalaureate degree and who intend to continue study toward an advanced degree may be permitted during their final term to register for graduate courses that will later apply toward a graduate degree. The student must obtain written permission from the school of proposed graduate study that the courses may count when and if the student is admitted into the graduate degree program. This privilege should not be granted if the proposed total program exceeds a normal full-time load. Although these credits will appear

on the undergraduate transcript, they will not count toward fulfilling undergraduate degree requirements. They will be posted as advanced standing credits on the graduate transcript.

REGISTRATION

REGISTERING FOR CLASSES

After being admitted to a graduate program, students may register for classes with their academic advisor. The registration period for a term or session is published in the University's *Schedule of Classes* (see <http://www.pitt.edu/~srfsweb/crseinPgCrInfo.htm>), in course descriptions, on calendars (including the University's Academic Calendar at <http://www.pitt.edu/~provost/calendar.html>), and in numerous other publications.

Students registering for the first time are advised to complete registration well before the beginning of the term. Typically, the first day of classes is the last day for students to register. After the start of classes, registration for new and continuing students is permitted only in unusual circumstances and only with the written approval of the dean and the payment of a late registration fee.

Many students have the convenience of processing their registration form online in their school or advisor's office. Students may also process their registration form in the Registration Office, G-1 Thackeray Hall.

Students are required to have the signature of their academic advisor on the registration form. The student's signature on the registration form creates a financial obligation to the University of Pittsburgh. Once students have registered, they may view their class schedules online at <http://student-info.pitt.edu>.

FULL-TIME AND PART-TIME STUDY

Students must be officially admitted to the University to be eligible to register for classes. Graduate students who register for nine to 15 credits in the Fall or Spring Term are full-time students and are assessed the tuition rate for their school (for detail, see <http://www.ba.pitt.edu/irweb/tuition/tuithmpg.htm>). A school may require students enrolled in a degree program to register for more than nine credits. Students who register for fewer than nine credits are part-time students and are billed on a per-credit basis. During the Summer Term and Summer Sessions, most students are billed on a per credit basis regardless of the number of credits taken. At the **Katz Graduate School of Business**, full-time MBA students are billed a flat rate in the Summer Term (since this is a one-year program, tuition is spread over three terms).

Doctoral students who have completed all credit requirements for the degree, including any minimum dissertation credit requirements, and are working full-time on their dissertations may register for full-time dissertation study, which carries no credits or letter grade but provides students full-time status. Students so enrolled are assessed a special tuition fee but are still responsible for paying the full-time computer and network, security/transportation, student health service, and activity fees. Students must consult with the dean's office of their school for permission to register for full-time dissertation study.

MAXIMUM CREDITS PER TERM

No student is permitted to register for more than 15 graduate credits without written permission from the dean of the academic center in which the student is pursuing a degree. Graduate students who register for more than 15 credits will be billed for each additional credit that exceeds their full-time tuition rate. Exceptions include the following:

- The **Katz Graduate School of Business** allows its full-time MBA students to register for up to 18 credits in the Fall and Spring Terms before additional per credit tuition charges apply.
- The **School of Law** has no maximum number of credits in its first-professional programs for billing purposes, but permission of the associate dean is required to register for more than 15 credits per term.
- The **Graduate School of Public Health** allows students pursuing the Master of Health Administration or the Master of Public Health in Environmental and Occupational Health to take up to 16 credits during their first year of study.
- The **School of Social Work** allows its students to register for 16 credits in the Fall Term before additional per credit tuition charges apply.

Individual schools and departments may restrict the maximum program of any or all of their graduate students.

REGISTRATION STATUS AT GRADUATION

All graduate students must register for at least one credit or full-time dissertation study during the 12-month period preceding graduation (that is, must be on active status) and must be registered for the term in which they plan to graduate. Waivers may be obtained by submitting a written request to the registrar from the dean of the school. The request should be based on extenuating circumstances, e.g. inability of the student's dissertation committee to meet during the final term when a student has given reasonable notice or the student has completed all degree requirements in a previous term.

INACTIVE STATUS

Students who have not registered for at least one credit or full-time dissertation study (eligible doctoral students) during a 12-month period are transferred to inactive status and must file an application for readmission to graduate study (application fee required) before being permitted to register again. Students on inactive status cannot apply to graduate or take preliminary or comprehensive examinations. Also, students on inactive status are not eligible to use University facilities and should not expect to receive counseling from the faculty or active supervision by their advisor and committee.

ADDING AND DROPPING COURSES

Students may add and drop course(s) only during the add/drop period. The dates for the add/drop period are listed in the University's *Schedule of Classes*, in course descriptions, on calendars (including the University's Academic Calendar at <http://www.pitt.edu/~provost/calendar.html>), and in numerous other publications. Students who no longer wish to remain enrolled in a course after the add/drop period has ended may withdraw from the course or resign from the University. See *Monitored Withdrawal from a Course or Resigning from the University*.

AUDITING COURSES

With the consent of the school and instructor, students may choose to audit a course. To audit a course, a student must register and pay tuition for the course. The N grade is not counted toward graduation or the QPA.

CROSS REGISTRATION

Carnegie Mellon University, Duquesne University, the Pittsburgh Theological Seminary, Robert Morris College, and the University of Pittsburgh offer graduate students the opportunity for cross registration in graduate programs in the five institutions in the Fall and Spring Terms. Credits earned by cross registration in graduate courses at Carnegie Mellon, Duquesne University, the Pittsburgh Theological Seminary, and Robert Morris College, when approved in advance by the student's graduate advisor, are accepted as University of Pittsburgh credits for the purpose of the calculation of the quality point average and the completion of degree requirements. Each department at each institution retains the authority to establish the prerequisites for admission and the maximum enrollment in its own courses and to grant priority in registration to its own graduate students.

Cross registration is only available in the Fall and Spring Terms. Only full-time students may cross register. Students who cross register do not pay tuition to the host institution; however, they are responsible for any additional fees associated with the course such as laboratory fees, books, and the like. During the summer, students may attend one of the above colleges as guest students, but they must pay that institution's tuition and fees. Students are discouraged from cross registering during their term of graduation to avoid any delays in the receipt of course credit needed to graduate. Students should meet with their advisor before they cross register. *See also Cross Registration Credit.*

REGISTERING FOR TWO INDEPENDENT DEGREE PROGRAMS SIMULTANEOUSLY

Students may pursue two independent graduate degrees simultaneously in two different schools within the University or two different departments within the same school. Normally, such students should be enrolled for no more than a total of 15 credits per term. Special approvals and regulations apply before a student is allowed to register for courses in pursuit of two independent graduate degrees. *See Special Academic Opportunities, page 30, for further detail.*

REGISTERING FOR COOPERATIVE-, DUAL-, AND JOINT-DEGREE PROGRAMS

Dual- and joint-degree programs result in two degrees being awarded. Requirements for these programs include all or most of the requirements of two distinct academic degree programs. Dual programs exist within a single school; joint programs exist between two or more schools; cooperative programs are administered by two or more institutions. Before registering for courses in pursuit of a cooperative-, dual-, or joint-degree program, a student must be admitted to both programs. *See Special Academic Opportunities, page 30, for further detail.*

MONITORED WITHDRAWAL FROM A COURSE

After the add/drop period has ended, students may withdraw from a course that they no longer wish to attend by completing a Monitored Withdrawal Request form in the office of the school offering the course.

Students must process the Monitored Withdrawal Request form within the first nine weeks of the term in the fall and spring. Because summer sessions vary in length, students should check the summer *Schedule of Classes* for those deadlines. Students should check with the school offering the course for the last day to submit a Monitored Withdrawal Request form. The grade "W" will appear on the student's grade report and transcript. There is no financial adjustment to students' tuition or fee obligations involved in withdrawing from courses, but withdrawing may jeopardize satisfactory academic progress, financial aid, and assistantships or fellowships.

RESIGNING FROM THE UNIVERSITY FOR A SPECIFIC TERM

If students decide to drop all of their courses after the add/drop period has ended and before 60% of the term or session has been completed, they must resign from the University for that term. Official resignation from the University requires students to contact the Student Appeals Office. Students have several options. They may resign in person, by mail, or by calling (412) 624-7585 where students may leave a message 24 hours a day, including weekends and holidays. An R grade will appear on the student's academic transcript. Tuition is prorated from the date of the student's notification to the Student Appeals Office of the student's desire to resign, unless 60% of the term has been completed, in which case there is no refund.

After the 60% point in time of the term or session has passed, students who wish to terminate their registration may process withdrawal from all classes only with the permission of their academic dean. If the reason for withdrawal is medical or psychological in nature, the academic dean may consult with the director of Student Health Service prior to making a determination. There is no financial adjustment associated with this procedure, which results in the assignment of W grades for the courses.

GRADING & RECORDS

QPA AND GPA

Quality Point Average (QPA) and Grade Point Average (GPA) are numerical indications of a student's academic achievement. QPA is the average of letter grades earned toward a degree. GPA is the average of total letter grades earned.

ACADEMIC STANDARDS

An average of at least B (QPA=3.00) is required in the courses that make up the program for any graduate degree. A student with full graduate status is automatically placed on probation whenever his or her cumulative QPA falls below 3.00. Each school determines the restrictions placed on a student on probation. *See Probation, Suspension, and Dismissal for further detail.*

GRADING SYSTEM

The University of Pittsburgh has a standard letter grade system (*see Letter Grades below*). Some additional grading options are available in some courses as determined by the school and the instructor (*see sections below on University Grading Options and Other Grades*). Students are subject to the grading system of the school in which they are taking the course.

UNIVERSITY GRADING OPTIONS

Individual schools may elect to offer one of the following grade options for its courses:

LG	Letter Grade
H/S/U	Honors/Satisfactory/Unsatisfactory
S/N	Satisfactory/Audit
LG and H/S/U	Letter Grade & Honors/Satisfactory/Unsatisfactory
LG and S/N	Letter Grade & Satisfactory/Audit

From among the grading options approved by the school, each department identifies those it deems acceptable for its courses. Furthermore, each course instructor may specify, within the grading options approved by the school and department, which grading options may be selected by students taking his or her course.

Students should choose a grading option from those listed with the course in the *Schedule of Classes*. Grade Option/Audit Request forms for graduate courses are not required and will not be accepted by the Office of the Registrar. Schools establish their own deadlines and procedures for processing grade option and audit requests.

Students receive the grade H or S for satisfactory work and U for unsatisfactory work. The grades H and S are counted toward graduation but not the student's QPA. The grades N and U are not counted toward graduation or the QPA. The S grade indicates adequate graduate attainment; in evaluating thesis or dissertation research, an instructor may only use the S/N grading option.

Students may audit a course and receive an N grade with the consent of the instructor and school offering the course. However, to audit a course, a student must register and pay tuition for the course. The N grade is not counted toward graduation or the QPA.

LETTER GRADES

The University's letter grade system for graduate courses (not first-professional) is as follows:

Grade		Quality Points
A+	=	4.00
A	=	4.00 Superior Attainment
A-	=	3.75
B+	=	3.25
B	=	3.00 Adequate graduate-level attainment
B-	=	2.75
C+	=	2.25
C	=	2.00 Minimal graduate-level attainment
C-	=	1.75
D+	=	1.25
D	=	1.00
D-	=	0.75
F	=	0.00 Failure

Courses in the first-professional programs (DDM, JD, LLM, MD, PharmD) use a different letter grade system; students should refer to

the relevant school's text in the First-Professional Programs section of this bulletin.

OTHER GRADES: INCOMPLETE, WITHDRAW, RESIGN

Upon a student's completion of a course, one of the grades listed below may appear on the student's transcript in lieu of one of the options selected by the student and/or instructor under University Grading Options. None of these grades carries quality points. Students should consult with their individual school for information on any school-specific regulations regarding these grades.

G GRADE

The G grade signifies unfinished course work due to extenuating personal circumstances. Students assigned G grades are required to complete course requirements no later than one year after the term in which the course was taken. After the deadline has passed, the G grade will remain on the record, and the student will be required to re-register for the course if it is needed to fulfill requirements for graduation.

I GRADE

The I grade signifies incomplete course work due to nature of the course, clinical work, or incomplete research work in individual guidance courses or seminars.

W GRADE

The W grade signifies that a student withdrew from course. *See Withdrawing from Courses for more information.*

R GRADE

The R grade indicates that a student has resigned from the University. *See Resigning from the University for more information.*

Z GRADE

The Z grade indicates that an instructor has issued an invalid grade.

REPEATING COURSES

A student may repeat any course in which a grade of B- or lower is received if an authorization to repeat the course is given by the student's advisor and/or department. A school may restrict the type and/or number of different courses that may be repeated during one degree program. The grade earned by repeating a course is used in lieu of the grade originally earned, although the original grade is not erased from the transcript. No course may be repeated more than twice. No sequence course may be repeated for credit after a more advanced course in that sequence has been passed with a B or higher grade. The repeated course must be the same as that in which the original grade was earned. In extenuating circumstances, a department chair, with the dean's approval, may substitute another course of similar content. Grades of W, R, or N reported for the repeated course will not be counted as a course repeat. To initiate only the last course grade being computed in the QPA, a Course Repeat Form must be filed with the dean's office.

CHANGING GRADES

Only the instructor of a course may change a student's grade by submitting a Change of Grade Card. All grade changes require the authorization of the dean of the school from which the original grade was issued. While each school may determine a time limit for grade changes, they should be processed no later than one year after the initial grade was assessed. Changes in I grades are exempt from this one-year policy.

ACADEMIC RECORD

The academic record is not an official University transcript, but a document containing a student's complete University of Pittsburgh academic history. In addition to the information provided on the transcript (as listed below), the academic record provides students and advisors with admission data, academic events, and advanced standing/placement/transfer credit information. Students with no outstanding financial obligations to the University can receive one free copy of their academic records each term in G-3 Thackeray Hall. For more information, send E-mail to transcert@pdc.srfs.pitt.edu.

GRADE REPORT

At the end of each term, a grade report is prepared by the Office of the University Registrar and mailed to the student, provided that all charges have been paid. This report shows the total credits carried, the grade received in each course, and total quality points earned. Shortly after the term ends, students can also access their grades online via the secure server at <http://student-info.pitt.edu/>.

TRANSCRIPTS

An academic transcript serves as a permanent record of a student's academic progress. The transcript is a cumulative record of the student's QPA, as well as a record of the department, title, and grade for each course in which the student has enrolled. Students may request an official transcript that bears the seal of the University of Pittsburgh and the signature of the University Registrar at a cost of \$3.00 per copy. Currently enrolled students may also receive one free unofficial copy of their transcript per term for personal use. Upon graduation, the transcript reflects a student's degree and date; major; and, if applicable, honors, area of concentration, and minor.

ACADEMIC HONORS

Schools and programs may recognize academic achievement by students through fellowships, scholarships, and other awards. Students should consult with their individual school and/or program for more information.

PROBATION, SUSPENSION, AND DISMISSAL

Students who fail to make satisfactory progress may be subject to academic probation and/or suspension and dismissal. Students who have completed at least nine quality point credits and whose QPA falls below 3.00 will be placed on academic probation by the dean of their school. After a certain period of time on academic probation (the period is determined by the student's school), a student is subject to academic suspension and restricted from registering for classes in that school. Details of the school's probation system are available through that school.

EFFECT ON FINANCIAL AID AND SCHOLARSHIPS

Conditions for loan eligibility and many scholarships (including those for teaching assistants, teaching fellows, graduate student assistants, and graduate student researchers) usually require students to complete a specified number of credits each year and maintain a specified quality point average (QPA: credits counting toward the degree). Questions about the effect of unsatisfactory academic standing on loans should be directed to the Office of Admissions and Financial Aid in the Masonic Temple (4227 Fifth Avenue) at (412) 624-7488. Questions

about the effect of unsatisfactory academic standing on scholarships, including teaching and research assistantships, should be directed to the particular graduate school.

EDITORIAL ASSISTANCE AND PUBLICATION OF THESES/DISSERTATIONS

All graduate students must follow University regulations regarding editorial assistance and publishing of theses and dissertations as detailed below.

EDITORIAL ASSISTANCE

A student preparing a dissertation or other written work as part of academic requirements may, when appropriate, use the assistance of professional editors, provided that the following rules are observed:

- (1) The student receives the approval of the research advisor or professor of the course in which written work is being submitted.
- (2) The student receives assistance only in use of language and not in the subject matter of the written work.
- (3) The student acknowledges and describes all editorial assistance in the report.

PUBLICATION OF THESES AND DISSERTATIONS

Any thesis or dissertation may be published, either by the University or through an outside agency, provided due credit is given the University. No form of publication, however, will relieve the student of his or her responsibility to supply the proper abstract and the specified number of complete copies of the thesis or dissertation for binding and deposit in the University Library System.

The doctoral candidate is required to execute an agreement with University Microfilms, Inc. for the publication of the dissertation on microfilm (*see Regulations Pertaining to Doctoral Degrees, page 23*).

Advisors should exercise responsibility in approving research topics that will not endanger long-term research projects or the safety or welfare of informants. Dependent upon the circumstances and the research point at which the danger is recognized, the provost's office may authorize a delay in publication of a dissertation for up to a maximum of one calendar year. Similarly, a publication may be withheld for a maximum of six months, if required, for filing a patent application.

REGULATIONS PERTAINING TO MASTER OF ARTS AND MASTER OF SCIENCE DEGREES

The Master of Arts (MA) and Master of Science (MS) degree programs provide an introduction to scholarly activities and research and often serve as preparation for teaching careers. These degrees are awarded for the completion of a coherent program designed to assure the mastery of specified knowledge and skills, rather than a random accumulation of a certain number of courses. The overall form and content of the student's program of study is the responsibility of the faculty of the department. To carry out this responsibility, each student must be assigned a major advisor, who, in consultation with the student, plans a program of study and research in accord with school and departmental guidelines.

MA AND MS REQUIREMENTS

The Master of Arts and Master of Science degrees normally require the satisfactory completion of approximately 30 credits of graduate study approved by the department or school. No Master of Arts or Master of Science degree program may require fewer than 24 course credits. Not more than six credits may be granted toward the completion of the requirements for a master's degree for work completed at another accredited graduate institution or for work previously completed at the University of Pittsburgh. *See Acceptance of Transfer Credits on page 17 for further information.*

At least four courses (12 credits) or one-half the master's degree program, whichever is greater, must be at the graduate-level (the 2000 or 3000 series) and must be completed with an average grade of B (3.00). No course numbered below 1000 may be applied toward graduate degree requirements.

Some master's programs may include approved areas of concentration or minors. Areas of concentration define and describe the student's training and expertise within the broader discipline. Minors represent significant coursework completed in an area related to the student's specialty. Such areas of concentration or minors are added to the transcript upon the granting of the degree.

Master's degrees are conferred only on those students who have completed all courses required for the degree with an average grade of B (i.e., a 3.00 QPA).

The requirement of proficiency in foreign languages is at the discretion of individual departments or schools.

Departments provide students with a copy of school and departmental regulations appropriate for their program. Students are expected to become familiar with these and to satisfy all prescribed degree requirements.

COMPREHENSIVE EXAMINATION

MA or MS degrees are conferred only upon those students who, in one or more comprehensive examinations or the equivalent, show that they have mastered the general field of their graduate study. Each department or similar unit is responsible for specifying the content and procedure for administration of the comprehensive examination and will specify for each candidate the field of his or her examination, which may vary from student to student. When a program substitutes an equivalent requirement for the comprehensive examination, the department should notify the University Council on Graduate Study and describe the substitution.

Students on inactive, special, or provisional status or on probation are not eligible to take a comprehensive examination. These examinations must be taken at least one month prior to the last day of the term in which the degree is to be granted. The results must be reported promptly to the office of the dean but no later than the last day of the term in which the examination is administered. A student who is unable to complete all degree requirements within a two-year period after passing the comprehensive examination may be re-examined at the discretion of the department or school.

THESIS OPTION

The requirement of a thesis or its equivalent is at the discretion of individual departments or schools. If a thesis is submitted, its form must be in accord with specifications stipulated in the *University Style and Form Manual*. Each candidate must provide a suitable number of copies of the thesis for review and use as designated by the thesis examining committee, consisting of at least three members of the faculty recommended by the major advisor and approved by the department chair. The final oral examination in defense of the master's thesis is conducted by the thesis committee, and a report of this examination signed by all members of the committee must be filed in the office of the dean. After the examination, at least one copy of the approved thesis must be deposited with the dean, who forwards it to the appropriate offices for microfilming and deposit in the University Library System. A receipt for the thesis binding/microfilming fees must be submitted with the thesis.

NON-THESIS OPTION

It is usual for a program to require additional course work if a thesis is not required.

For the Master of Arts degree, students must acceptably describe, in writing, one or more substantial intellectual experiences or accomplishments. In programs in which a master's thesis is optional, the student must satisfy this requirement by submitting a paper (or papers), as designated by the major department, and must demonstrate competence in using methods of scholarship.

For the Master of Science degree, a paper or research project is usually required.

REGULATIONS PERTAINING TO PROFESSIONAL MASTER'S DEGREES

The professional master's degree programs are generally similar to those for the MA and MS except that they emphasize instruction in professional affairs and practice and serve as preparation for careers in the professions. The program of study is a coherent program designed to assure the mastery of specified knowledge and skills, rather than a random accumulation of a certain number of courses. The overall form and content of the student's program of study is the responsibility of the student's department or school. To carry out this responsibility, each student must be assigned a major advisor, who, in consultation with the student, plans a program of study and research in accord with school and departmental guidelines.

PROFESSIONAL MASTER'S DEGREE REQUIREMENTS

Professional master's degrees are conferred upon those students who demonstrate comprehensive mastery of their general field of study. The professional master's degrees normally require the satisfactory completion of more than 30 credits of graduate study approved by the department. No professional master's degree program may require fewer than 30 credits. No more than one-third of the total number of required credits may be granted to a student as transfer credit for work done at another accredited graduate institution. (*See Acceptance of Transfer Credits, page 17, for further detail.*) At least one-half of the credits earned in a master's degree program must be at the graduate

level (the 2000 or 3000 series). No courses numbered below 1000 may be applied toward graduate degree requirements. Master's degrees are conferred only on those students who have completed all course requirements with at least a 3.00 QPA.

Most professional master's degree programs provide opportunities for theoretical studies and practical applications. Students are expected to acquire professional skills through course work, projects, internships, practica, and/or research papers as part of demonstrating their comprehensive mastery of their field of study.

Requirements vary from school to school. Departments provide students with a copy of school and departmental regulations appropriate for their programs. Students are expected to become familiar with these and to satisfy all prescribed degree requirements.

Professional master's degrees are conferred upon those students who demonstrate comprehensive mastery of the general field of study. This includes: (a) satisfactory completion of all course requirements and (b) other performances that indicate comprehensive mastery such as examinations, internships, research projects, theses, and practica. These requirements vary from school to school; students should refer to the specific requirements of their program in the Schools, Departments, and Programs section of this bulletin.

REGULATIONS PERTAINING TO DOCTORAL DEGREES

While the regulations governing doctoral study in this section represent university-wide policy, *students should check the Schools, Departments, and Programs section of this bulletin* and with their advisor for any expansions of or exceptions to these rules.

ADMISSION TO DOCTORAL STUDY

In some departments, the requirements for admission to graduate study and for admission to doctoral study are identical, while other departments require the completion of a master's degree or its equivalent as a prerequisite for admission to doctoral study. Admission to doctoral study does not include any implication concerning admission to candidacy for the Doctor of Philosophy degree.

Normally, only one major department of graduate study is permitted for the PhD degree. However, a few formal interdisciplinary programs and, under some circumstances, some independently designed interdisciplinary doctoral programs are available (*see Interdisciplinary Doctoral Programs, page 26*).

PROGRAMS OF STUDY

PhD programs offered at the University of Pittsburgh provide a coherent series of courses, seminars, and discussions designed to develop in the student a mature understanding of the content, methods, theories, and values of a field of knowledge and its relation to other fields. Each program trains the student in the methods of independent research appropriate to the discipline and provides an advisor and a committee to guide the student in an extended investigation of an original and independent research project of significance in the field.

The overall form and content of each student's program is the responsibility of the Graduate Faculty of the department. To carry out this responsibility, the departments must ensure that each student has

a major advisor who, in consultation with the student, plans a program of study and research in accord with school and departmental guidelines. The advisor may prescribe additional courses both within and outside the department that are essential and/or appropriate to the student's program.

Some doctoral programs may include approved areas of concentration used to define and describe the student's training and expertise within the broader discipline. Such an area of concentration is added to the transcript upon the granting of the degree.

Doctoral level courses are numbered in the 3000 series, but courses numbered in the 2000 series may also be appropriate for doctoral study. Normally, courses numbered below 2000 do not meet the minimum requirements for doctoral study, although they may be taken to supplement a doctoral program.

Students must maintain a minimum cumulative QPA of 3.00 in courses to be eligible to take the preliminary and comprehensive examinations as well as to graduate.

The requirement of proficiency in the use of foreign languages or other tools of research is at the discretion of individual departments or schools.

Departments provide students with a copy of school and departmental regulations appropriate for their program and, in turn, students are expected to become familiar with these and to satisfy all prescribed degree requirements.

CREDIT REQUIREMENTS

The minimum credit requirement for the PhD degree is met by six terms of registration as a graduate student for 12 or more credits per term or the equivalent number of credits taken in a reduced load over a longer period of time. If the school requires completion of its master's degree program prior to admission into its doctoral program, at least four terms of registration for 12 or more credits per term or the equivalent number of credits in a reduced load are required as a minimum for the PhD degree. No more than 30 credits may be accepted for a master's degree awarded by another institution to meet the minimum credit requirement; some schools have more stringent requirements, including the **Faculty of Arts and Sciences** and the **Graduate School of Public Health**, both of which will accept only 24 credits for a master's degree awarded by another institution.

In recognition of graduate study beyond the master's degree successfully completed elsewhere, no more than 12 additional credits may be accepted at the time of admission to meet the minimum credit requirement. (*See also Acceptance of Transfer Credits, page 17.*) No more than 30 credits may be accepted for a previously earned PhD degree in recognition of master's degree work, though some schools have more stringent requirements, including the following:

- The **Faculty of Arts and Sciences** accepts only 24 credits from a previously earned PhD in recognition of master's degree work.
- The **Graduate School of Public Health** accepts only six credits from a previously earned PhD degree in recognition of its students' work towards its Master of Science programs. Also, its students working towards the Master of Public Health may use credits from a previously earned PhD to satisfy no more than one-third of the required credits for the MPH.

Graduate students already enrolled may, when approved in advance by their department and the dean, spend a term or more at another graduate institution to obtain training or experience not available at the University of Pittsburgh and transfer those credits toward the requirements for an advanced degree at the University of Pittsburgh. In all cases, at least three terms, or 36 credits, of full-time doctoral study or the equivalent in part-time study must be successfully completed at the University of Pittsburgh.

RESIDENCY REQUIREMENT

Students seeking the PhD degree are required to engage in a minimum of one term of full-time doctoral study, which excludes any other employment except as approved by their departments.

PRELIMINARY EVALUATION

The preliminary evaluation should be designed to assess the breadth of the student's knowledge of the discipline, the student's achievement during the first year of graduate study, and the potential to apply research methods independently. The form and nature of the evaluation should be approved at the school level. It should be conducted at approximately the end of the first year of full-time graduate study. The evaluation is used to identify those students who may be expected to complete a doctoral program successfully and also to reveal areas of weakness in the student's preparation. Evaluation results must be reported promptly to the dean's office, but no later than the last day of the term in which the evaluation occurs. A student on provisional, inactive, or special status or on probation is not eligible to take the preliminary evaluation.

COMPREHENSIVE EXAMINATION

The comprehensive examination should be designed to assess the student's mastery of the general field of doctoral study, the student's acquisition of both depth and breadth in the area of specialization within the general field, and the ability to use the research methods of the discipline. In some programs, the comprehensive examination is combined with the overview or prospectus meeting. It should be administered at approximately the time of the completion of the formal course requirements and should be passed at least eight months before the scheduling of the final oral examination and dissertation defense. In no case may the comprehensive examination be taken in the same term in which the student is to graduate. Examination results must be reported promptly to the dean's office but no later than the last day of the term in which the examination is administered. A student who is unable to complete all degree requirements within a five-year period after passing the comprehensive examination may be re-examined at the discretion of the department or school. A student on provisional, inactive, or special status or on probation is not eligible to take the comprehensive examination.

DOCTORAL COMMITTEE

Before the student is admitted to candidacy for the PhD degree, the student's major advisor proposes, for the approval of the department chair or director of the school's doctoral program and the dean, a committee of four or more persons, including at least one from another department in the University of Pittsburgh or from an appropriate graduate program at another academic institution, to serve as the doctoral committee. The majority of the committee, including the major advisor, must be full or adjunct members of the Graduate Faculty (see <http://www.pitt.edu/~graduate> for most recent Graduate Faculty

roster). This committee must review and approve the proposed research project before the student may be admitted to candidacy.

This doctoral committee has the responsibility to advise the student during the progress of the candidate's research and has the authority to require high quality research and/or the rewriting of any portion or all of the dissertation. It conducts the final oral examination and determines whether the dissertation meets accepted standards.

Meetings of the doctoral candidate and his/her dissertation committee must occur at least annually from the time the student gains admission to doctoral candidacy. During these meetings, the committee should assess the student's progress toward the degree and discuss objectives for the following year and a timetable for completing degree requirements. It is the responsibility of the dean of each school to determine a mechanism for monitoring the occurrence of these annual reviews.

The membership of the doctoral committee may be changed whenever it is appropriate or necessary, subject to the approval of the department chair and the dean.

When a doctoral committee member leaves the University, he or she must be replaced unless the dissertation is almost complete or the member has an essential role on the committee. In the latter case, the dean's approval should be obtained. When the chair of a committee leaves and cannot be conveniently replaced, a co-chair must be appointed from within the department, and the restructured committee requires the approval of the dean and either the department chair or the director of the school's doctoral program. If the defense takes place within a few months of the chair's departure, the requirement of the co-chair is usually waived.

A retired faculty member may remain as a member or chair of a committee if he or she is spending considerable time in Pittsburgh or the vicinity and is still professionally active. Retired faculty who meet these criteria may also be appointed as a member or as a co-chair (but not chair) of a newly formed committee. Retired faculty who leave the Pittsburgh area and/or do not remain professionally active should be replaced on committees and the revised committee approved by the dean and either the department chair or the school's director of doctoral programs.

OVERVIEW OR PROSPECTUS MEETING

Each student must prepare a dissertation proposal for presentation to the doctoral committee at a formal dissertation overview or prospectus meeting. The overview requires the student to carefully formulate a plan and permits the doctoral committee members to provide guidance in shaping the conceptualization and methodology of that plan. The doctoral committee must unanimously approve the dissertation topic and research plan before the student may be admitted to candidacy for the doctoral degree. Approval of the proposal does not imply either the acceptance of a dissertation prepared in accord with the proposal or the restriction of the dissertation to this original proposal. If the research proposed in the overview or prospectus involves human subjects, that proposed research must be approved by the University Institutional Review Board (IRB) before it may be carried out. *For details, see Human Research Subjects: Institutional Review Board under Rights and Responsibilities on page 28, and a description of the Institutional Review Board on page 28.*

ADMISSION TO CANDIDACY FOR THE DOCTOR OF PHILOSOPHY DEGREE

Admission to candidacy for the Doctor of Philosophy degree constitutes a promotion of the student to the most advanced stage of graduate study and provides formal approval to devote essentially exclusive attention to the research and the writing of the dissertation. To qualify for admission to candidacy, students must fulfill the following requirements:

- Be in full graduate status
- Have satisfied the requirement of the preliminary evaluation
- Have completed formal course work with a minimum quality point average of 3.00
- Have passed the comprehensive examination
- Have received approval of the proposed subject and plan of the dissertation from the doctoral committee following an overview or prospectus meeting of the committee

In some schools, admission to candidacy is a prerequisite to registration for dissertation credits. Students are informed of admission to candidacy by written notification from the dean, who also states the approved doctoral committee's composition.

REGISTERING FOR FULL-TIME DISSERTATION STUDY

Doctoral students who have completed all credit requirements for the degree, including any minimum dissertation credit requirements, and are working full-time on their dissertations may register for **Full-Time Dissertation Study**, which carries no credits or letter grade but provides students full-time status. Students so enrolled are assessed a special tuition fee but are still responsible for the full-time computer and network, security/transportation, student health, and activity fees. Students must consult with the dean's office of their school for permission to register for full-time dissertation study.

DISSERTATION AND ABSTRACT

Each student must write a dissertation that presents the results of his or her research project. An appropriate research project involves a substantive piece of original and independent research grounded in an appropriate body of literature. The dissertation must be relevant to an identifiable field as it is currently practiced, present a hypothesis tested by data and analysis, and provide a significant contribution or advancement in that field. It is the responsibility of the student's doctoral committee to evaluate the dissertation in these terms and to recommend the awarding of the doctoral degree only if the dissertation is judged to demonstrate these qualities.

A dissertation should demonstrate the following characteristics:

- The establishment of a historical context for the presentation of an innovative and creative approach to the problem analysis and solution
- A clear understanding of the problem area as revealed by analysis and synthesis of a broad literature base
- A well-defined research design

- Clarity in composition and careful documentation
- Results of sufficient merit to be published in refereed journals or to form the basis of a book or monograph
- Sufficient detail so that other scholars can build on it in subsequent work
- The preparation of the author to assume a position within the profession

If the dissertation is the result of a collaborative research effort, the project should be structured in such a way that the student's dissertation results from one clearly identified piece of work in which the student has unquestionably supplied the major effort. The contributions of the student and the other collaborators must be clearly identified.

Published articles authored by the student and based on research conducted for the dissertation study may be included in the dissertation if the student's department and school have a written policy that this is acceptable. In any case, the published work must be logically connected and integrated into the dissertation in a coherent manner, and sufficient detail must be presented to satisfy the characteristics of a dissertation. The student should be the sole or primary author of the published work. If the published articles were co-authored, the contribution of the student must be clearly delineated in the introduction so the committee can ascertain that the student's own work satisfies the requirements of a dissertation. The Style and Form Manual gives instructions on incorporating articles into the dissertation.

Candidates for the doctoral degree must provide a suitable number of copies of the dissertation, as determined by the doctoral committee and school policy, for review and use during the final oral examination. The general format of the dissertation and the abstract is determined by the Office of the Provost and is set forth in the University's Style and Form Manual. Specific instructions should be available in the office of the dean of the school. After the final oral examination is successfully completed, the candidate must deposit with the dean at least one copy of the approved, completed dissertation and abstract in final form, at least two additional copies of the dissertation abstract, and a receipt for payment of the dissertation binding/microfilm fees. The candidate is also required to execute an agreement with University Microfilms Inc. for the publication of the dissertation on microfilm and for the publication of the abstract of the dissertation in *Dissertation Abstracts*.

LANGUAGE OF THE DOCTORAL DISSERTATION

The language in which doctoral dissertations are written shall normally be English. Exceptions may be granted by the student's dean with the approval of the dissertation advisor and committee, but only for sound reasons of scholarship. Permission shall never be granted on the grounds of the student's inadequate command of English.

FINAL ORAL EXAMINATION

The final oral examination in defense of the doctoral dissertation is conducted by the doctoral committee and need not be confined to materials in and related to the dissertation. Any member of the Graduate Faculty of the University may attend and participate in the examination. The date, place, and time of the examination should be published well in advance in the University Times. Other qualified individuals may

be invited by the committee to participate in the examination. Only members of the doctoral committee may be present during the final deliberations and vote on the passing of the candidate. A report of this examination, signed by all the members of the doctoral committee, must be sent to the dean. If the decision of the committee is not unanimous, the case is referred to the dean for resolution. The chair of the doctoral committee should ensure that the dissertation is in final form before requesting signatures of the members of the committee.

INTERDISCIPLINARY DOCTORAL PROGRAMS

A student may be admitted into one of two types of interdisciplinary doctoral programs, generic and individualized.

GENERIC PROGRAMS

Generic programs are ongoing, formally structured, and approved doctoral programs. Admission to these programs follows the same procedures as those of departmental programs.

INDIVIDUALIZED PROGRAMS

Individualized programs are specially designed to permit an exceptionally able student who has earned a master's degree or the equivalent to pursue an interdisciplinary doctoral program structured to satisfy his or her unique goals. Such students should apply to the dean of the school if the departments involved in the proposed program are organized within one school or to the provost if the departments are organized within more than one school. The student must satisfy the admission requirements of each of the departments or schools involved in the proposed program.

If the request is approved, the dean or the provost, in consultation with the departments concerned, will designate five members from these departments to serve as an advisory committee. After these advisors meet with the student, a chief advisor is selected to assume responsibility for general guidance to the student. These advisors continue their responsibility until the student is admitted to candidacy for the PhD degree and may, if it is appropriate, continue as the doctoral committee for this student.

OTHER DOCTORAL DEGREES

The University of Pittsburgh, through its professional schools, offers the following doctoral degrees in professional fields of study: Doctor of Education and Doctor of Public Health.

These doctoral degree programs are similar to those for the PhD in the degree of rigor required; the minimum total credit requirements and permissible transfer credits; the requirements for the successful completion of a preliminary evaluation and a comprehensive examination; the admission to doctoral candidacy; the nomination of a doctoral committee; the preparation of the dissertation and abstract; the publication of the dissertation; and the successful completion of the final oral examination. Professional doctoral dissertations are usually based on an in-depth empirical research project by the student and are intended to permit the student to apply relevant theory and knowledge as well as to demonstrate skills in analysis of a major problem and to contribute to the improvement of practice in the student's area of specialization.

Such doctoral degree programs may differ from those for the PhD in several ways. They are generally more strongly focused on professional affairs and practice and often serve as preparation for or advancement of careers in the professions.

STATUTE OF LIMITATIONS/LEAVES OF ABSENCE

The purpose of the statute of limitations is to ensure that a graduate degree from the University of Pittsburgh represents mastery of current knowledge in the field of study. Individual schools within the University may adopt policies that are more stringent, but not less, than those stated here.

All requirements for MA and MS degrees must be completed within a period of four consecutive calendar years from the student's initial registration for graduate study; all professional master's degrees, within five years. Dual degrees and joint degrees that require course work in excess of 50 credit hours may be granted a longer statute of limitations by the University Council on Graduate Study.

From the student's initial registration for graduate study, all requirements for the PhD degree must be completed within a period of ten years, or within eight years if the student has received credit for a master's degree appropriate to the field of study. A student who is unable to complete all degree requirements within a five-year period after passing the comprehensive examination may be re-examined at the discretion of the department or school. Programs for professional doctoral degrees, for which the majority of candidates pursue part-time study while working full-time within their chosen disciplines, may be granted a longer statute of limitations by the schools offering the degrees.

Under exceptional circumstances, a candidate for an advanced degree may apply for an extension of the statute of limitations. The request must be approved by the department or departmental committee (master's or doctoral) and submitted to the dean for final action. Requests for an extension of the statute of limitations must be accompanied by a departmental assessment of the work required of the student to complete the degree as well as documented evidence of the extenuating circumstances leading to the requested extension. Students who request an extension of the statute of limitations must demonstrate proper preparation for the completion of all current degree requirements.

Under special conditions, graduate students may be granted one leave of absence. A maximum leave of two years may be granted to doctoral students or one year to master's students. The length and rationale for the leave of absence must be stated in advance, recommended to the dean by the department, and approved by the dean. If approved, the time of the leave shall not count against the total time allowed for the degree being sought by the student. Readmission following an approved leave of absence is a formality.

GRADUATION

REQUIREMENTS FOR GRADUATION

Graduation requirements for MA, MS, professional master's, and doctoral degrees are described earlier in this bulletin under the relevant sections detailing the regulations pertaining to each degree. In order to graduate from the University of Pittsburgh, a graduate student must be an active University of Pittsburgh student registered for at least one credit or full-time dissertation study in the term of graduation. *See specific schools and programs for detailed information on degree and graduation requirements.*

APPLICATION TO GRADUATE

Students must file an application for graduation in the dean's office of their school early in the term in which graduation is expected. Each school establishes its own deadline by which students must apply for graduation. Students should check with their dean's office for the deadline. As noted above, students must be active and registered in the term in which they are to graduate; in exceptional circumstances, students who complete all the degree requirements at the end of a term but graduate in the next term may petition the dean of the school for a waiver of this registration requirement. The requirement that a student be on active status cannot be waived.

Prior to the end of the term in which they graduate, all doctoral candidates must submit to the dean's office a completed Survey of Earned Doctorates.

CERTIFICATION FOR GRADUATION

The Graduate Faculty of the department or program evaluates the performance of the student. If that performance is satisfactory, a report should be submitted to the dean certifying that the candidate has satisfactorily completed all departmental requirements for a graduate degree. The dean, after confirming that the overall school and University requirements have been met, certifies the candidate for graduation.

COMMENCEMENT

Candidates for graduation are encouraged to appear in person at the Annual Commencement Convocation, usually held the Sunday after the Spring Term ends. Although the degree is officially conferred at commencement, diplomas are mailed to graduates several weeks later.

RIGHTS AND RESPONSIBILITIES

The University has a number of official policies affecting students. For complete and current text on all University policies, please see http://www.pitt.edu/HOME/PP/pp_handbooks.html.

The information below summarizes several key University-wide policies affecting graduate students, but students are also responsible for being cognizant of those University, school, and departmental regulations relevant to their programs of study.

ACADEMIC INTEGRITY POLICY

Students have the right to be treated by faculty in a fair and conscientious manner in accordance with the ethical standards generally recognized within the academic community (as well as those recognized within the profession). Students have the responsibility to be honest and to conduct themselves in an ethical manner while pursuing academic studies. Should a student be accused of a breach of academic integrity or have questions regarding faculty responsibilities, procedural safeguards including provisions of due process have been designed to protect student rights. These general procedures may be found in Guidelines on Academic Integrity: Student and Faculty Obligations and Hearing Procedures at <http://www.pitt.edu/~graduate/ail.html>. Individual schools have their own academic integrity policies, and students are encouraged to review these school-specific guidelines, as well.

AFFIRMATIVE ACTION AND NON-DISCRIMINATION POLICY

The University of Pittsburgh, as an educational institution and as an employer, values equality of opportunity, human dignity, and racial/ethnic and cultural diversity. Accordingly, the University prohibits and will not engage in discrimination or harassment on the basis of race, color, religion, national origin, ancestry, sex, age, marital status, familial status, sexual orientation, disability, or status as a disabled veteran or a veteran of the Vietnam era. Further, the University will continue to take affirmative steps to support and advance these values consistent with the University's mission. This policy applies to admissions, employment, and access to and treatment in University programs and activities.

AIDS POLICY

The University of Pittsburgh does not discriminate against individuals who are diagnosed as HIV positive or as having AIDS. The University recognizes that the health condition of individuals is personal and confidential. Reasonable precautions will be taken to protect information regarding the health condition of all members of the University community. Based on medical evidence that indicates that there is no risk of transmitting HIV through casual contact in the classroom or circumstances involving only casual contact with others, the University will impose no undue restrictions on faculty, staff, or students who are infected with HIV.

For complete text on this policy, see <http://www.pitt.edu/HOME/PP/policies/06/06-01-01.html>.

COMPUTING USE POLICY

Every member of the University community has two basic rights regarding computing: privacy and a fair share of resources. It is unethical for another person to violate these rights. All users, in turn, are expected to exercise common sense and decency with regard to the campus computing resources. Please read Ethical Guidelines for Computing, available in campus computing labs or online at <http://www.pitt.edu/~document/ethics/ethics.html>, for details.

Students are subject to the rules and regulations as described in the University of Pittsburgh Student Code of Conduct (*see below*). Students should realize that any misuse of computing resources may result in the suspension of their computing privileges.

COPYRIGHT POLICY

The University of Pittsburgh affirms that, except as specifically exempted by this policy, faculty, staff, and students are entitled to claim copyright ownership, including world-wide rights, in the following works authored by them: books, articles, educational coursework, similar works that are intended to disseminate the results of academic research or scholarly study, popular fiction or nonfiction works, poems, musical compositions, and other works of artistic imagination.

The University has no proprietary interest in copyrightable materials produced by faculty, staff, or students under contract with entities external to the University (in which the faculty, staff, or students have no controlling or majority interest), except as specifically exempted by this policy. For complete text of the policies, including the aforementioned exemptions, see <http://www.pitt.edu/HOME/PP/policies/11/11-02-02.html>.

DRUG-FREE SCHOOL AND WORKPLACE POLICY

The University of Pittsburgh prohibits the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance on University property or as part of any University activity. Faculty, staff, and students of the University must also comply with the laws of the Commonwealth of Pennsylvania on the possession and consumption of alcohol.

Violation of this policy will result in disciplinary action within 30 days, including, but not limited to, a warning, written reprimand, suspension, dismissal, expulsion, and/or mandatory participation and successful completion of a drug abuse assistance or rehabilitation program approved by an appropriate health or law enforcement agency.

Any University employee paid from federally funded grants or contracts, or any students participating in any federally funded or Guaranteed Student Loan program, must notify the University of any criminal drug statute conviction for a violation occurring at the University or while engaged in University activities.

For complete text on this policy, see <http://www.pitt.edu/HOME/PP/policies/06/06-02-01.html>.

FACULTY-STUDENT RELATIONSHIPS

The University's educational mission is promoted by professional relationships between faculty members and students. Relationships of an intimate nature (that is, sexual and/or romantic) compromise the integrity of a faculty-student relationship whenever the faculty member has a professional responsibility for the student. The University prohibits relationships between a faculty member and a student whose academic work, teaching, or research is being supervised or evaluated by the faculty member.

If an intimate relationship should exist or develop between a faculty member and a student, the University requires the faculty member to remove himself/herself from all supervisory, evaluative, and/or formal advisory roles with respect to the student.

Definition Note: In this policy, the definition of "faculty member" refers to anyone appointed by the University as a teacher, researcher, or academic administrator, including graduate and undergraduate students so appointed. For complete text on this policy, see <http://www.pitt.edu/DOC/94/271/42590/policies/02/02-04-03.html>.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

In compliance with the Family Educational Rights and Privacy Act of 1974, commonly referred to as the Buckley Amendment, the University guarantees that students have the right to inspect all personally identifiable records maintained by the institution and may challenge the content and accuracy of those records through appropriate institutional procedures. It is further guaranteed by the University that student records containing personally identifiable information will not be released except as permitted by the Family Educational Rights and Privacy Act. See <http://www.pitt.edu/~srfsweb/buckley.htm> for more information on FERPA.

GRADUATE STUDENT RESEARCHER POLICY STATEMENT

Graduate Student Researchers (GSRs) at the University of Pittsburgh are graduate students who are receiving financial support from research

funds in return for duties performed to meet the goals for which the funds were awarded. The research performed is also normally an integral part of the student's research practicum experience, thesis, or dissertation. A primary goal of the appointment, from the point of view of both the University and the student, is to provide financial support to the graduate student. For the complete text of the GSR Policy Statement, refer to <http://www.pitt.edu/~graduate/gsr.html>.

HARASSMENT POLICIES

HARASSMENT

No University employee, student, or individual on University property may intentionally harass or abuse a person (physically or verbally) with the purpose or effect of unreasonably interfering with such person's work or academic performance, or of creating an intimidating, hostile, or offensive work or academic environment.

SEXUAL HARASSMENT

The University of Pittsburgh is committed to the maintenance of a community free from all forms of sexual harassment. Sexual harassment violates University policy as well as state, federal, and local laws. It is neither permitted nor condoned.

It is also a violation of the University of Pittsburgh's policy against sexual harassment for any employee or student at the University of Pittsburgh to attempt in any way to retaliate against a person who makes a claim of sexual harassment.

Any individual who, after thorough investigation and an informal or formal hearing, is found to have violated the University's policy against sexual harassment, will be subject to disciplinary action, including, but not limited to, reprimand, suspension, termination, or expulsion. Any disciplinary action taken will depend upon the severity of the offense. For more information, see <http://www.pitt.edu/~provost/har.html>.

HUMAN RESEARCH SUBJECTS: INSTITUTIONAL REVIEW BOARD

The University of Pittsburgh is guided by the ethical principles regarding all research involving humans as subjects, as set forth in the report of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (entitled: *Ethical Principles and Guidelines for the Protection of Human Subjects for Research [the "Belmont Report"]*).

Most research at the University involving humans as subjects must be reviewed and approved by an Institutional Review Board (IRB) before the research will be allowed to proceed. For complete text of the IRB's policies and practices, see <http://www.irb.pitt.edu/> or contact the IRB at (412) 692-4370.

PATENT POLICY

A University student, during his/her period of enrollment, may be responsible for new discoveries and inventions that could have commercial value and contribute to scientific, technological, social, and cultural progress. Those accomplishments should be patented in the best interest of the student, the University, the public, and the government. The University's policy on patents determines the rights and obligations of the student and the University in any technology the student may invent while enrolled in the University. Details of this University policy are available from the Office of Technology Transfer and Intellectual Property at 200 Gardner Steel Conference Center and at <http://www.pitt.edu/HOME/PP/policies/11/11-02-01.html>.

RESEARCH INTEGRITY

The University of Pittsburgh seeks excellence in the discovery and dissemination of knowledge. Excellence in scholarship requires all members of the University community to adhere strictly to the highest standards of integrity with regard to research, instruction, and evaluation. Research misconduct carries potential for serious harm to the University community, to the integrity of science, and to society as a whole. The University's Research Integrity Policy is available online at <http://www.pitt.edu/DOC/94/271/42590/policies/11/11-01-01.html>.

SMOKING POLICY

Smoking is prohibited in all University-owned and leased facilities, including residence halls and off-campus housing facilities, and in all University vehicles, including motor pool vehicles, campus buses, and vans, with explicit limited exceptions described in University Policy 04-05-03.

STUDENT CODE OF CONDUCT

The Student Code of Conduct is an outline of the non-academic rights and responsibilities of University students. The code defines offenses against students. A student or University official may file a complaint of violation of the Student Code of Contact at the University Student Judicial System Office. For a copy of the code, please contact the

Judicial System Office in 738 William Pitt Union at (412) 648-7918 or see <http://www.pitt.edu/~osaweb/usjs/code.html>.

JUDICIAL SYSTEM

The Office of the University Student Judicial System coordinates the Campus Judicial Board. It also receives, previews, and acts upon complaints of violations of the Student Code of Conduct. Its purpose is to provide due process and fair treatment in disciplinary actions. All complaints should be filed here.

Judicial Affairs also conducts a Student Mediation Program, monitors FERPA (Family Educational Rights and Privacy Act) guidelines on student records, and screens requests for contact of students.

**TEACHING ASSISTANT/TEACHING FELLOW/
GRADUATE STUDENT ASSISTANT POLICY
STATEMENT**

Teaching Assistants (TAs), Teaching Fellows (TFs), and Graduate Student Assistants (GSAs) at the University are graduate students who are receiving support in return for specified duties while gaining teaching and teaching-related experience under the guidance of faculty mentors. Their primary objective, from the standpoint of the University and the individual, is to make steady progress toward an advanced degree. TA/TF/GSA appointment status is dependent upon graduate student status. The complete policy statement for TA/TF/GSAs is available at <http://www.pitt.edu/~graduate/tapolicy.html>.

SPECIAL ACADEMIC OPPORTUNITIES

Special academic opportunities such as certificate programs provide students with ways to augment their education and experience with expanded study programs both on and off campus, in both university and professional settings.

AREA OF CONCENTRATION AND MINORS

Some graduate programs may include approved areas of concentration or minors. Areas of concentration define and describe the student's training and expertise within the broader discipline. Minors represent significant course work completed in an area related to the student's specialty. An area of concentration that is specified for a particular degree program can only be posted to the academic record and the official transcript of those students completing the degree program. A graduate minor offered by the faculty at the Pittsburgh campus is available to any graduate student enrolled in an academic degree program on the campus provided that the school from which the student is graduating recognizes this minor. For each degree, only one minor and one area of concentration can be pursued. Areas of concentration or minors are added to the transcript upon the granting of the degree. *See the Schools, Departments, and Programs section of this bulletin for available areas of concentration and minors.*

CERTIFICATE PROGRAMS

Students may enrich their educational experience by electing to take an academic interdisciplinary certificate program in the areas listed at the start of the Schools, Departments, and Programs section of this bulletin (*see page 31*).

A certificate program at the graduate level is a coherent set of courses and related work in a particular area; the minimum credit requirement is 15 credits, of which 12 credits must be earned at the University of Pittsburgh. The certificate may appear on the transcript as a degree goal and will appear on the final transcript as an awarded certificate.

A student must be formally admitted into a certificate program. The requirements for each certificate vary and students should contact the certificate program director.

CROSS REGISTRATION

Carnegie Mellon University, Duquesne University, the Pittsburgh Theological Seminary, Robert Morris College, and the University of Pittsburgh offer graduate students the opportunity for cross registration

in graduate programs in the five institutions in the Fall and Spring Terms. *See Cross Registration in the Registration section of this bulletin for further details.*

TWO INDEPENDENT DEGREE PROGRAMS SIMULTANEOUSLY

Students may pursue two independent graduate degrees simultaneously in two different schools within the University or two different departments within the same school. Students desiring to enroll in two degree programs must have approval from both program faculties and their respective deans, must be admitted into both programs, and must satisfy the degree requirements of both programs. Students are billed at the tuition rate of the primary academic program. Normally, such students should be enrolled for no more than a total of 15 credits per term.

The same examination, thesis, or dissertation cannot be used to fulfill requirements for two independent degrees, although a maximum of six credits of course work may be used in partial fulfillment of the requirements of both degrees. It is the responsibility of the dean or deans, if two schools are involved, to ensure that this regulation is enforced.

COOPERATIVE-, DUAL-, AND JOINT-DEGREE PROGRAMS

Dual- and joint-degree programs result in two degrees being awarded. Requirements for these programs include all or most of the requirements of two distinct academic degree programs. These programs may result in a student earning two separate master's degrees, a master's and a first-professional degree, or a master's or first-professional degree and a doctoral degree, but never result in a student earning two separate doctoral degrees. Dual programs exist within a single school; joint programs exist between two or more schools; cooperative programs are administered by two or more institutions. The same course, examination, or thesis may be used to fulfill requirements only if so specified in the documents formally establishing the joint- or dual-degree program approved by the University.

Students must be admitted to both academic programs offering the dual or joint degrees being sought and must graduate from both degree programs at the same time. Students are advised to see the individual school for other specific requirements that apply.

SCHOOLS, DEPARTMENTS, AND PROGRAMS

Students who are interested in or accepted to any of the University of Pittsburgh's graduate or professional programs listed below other than those leading to the first-professional degrees offered by the University (MD, JD, LL.M, PharmD, or DMD) will find useful most of the sections of this bulletin. Descriptions of the University, its regulations, and its services are included in the sections prior to the program-specific information in the Schools, Departments, and Programs section of the bulletin, and should be read in conjunction with the specific program information detailed under the relevant school.

Students interested in first-professional programs (MD, JD, LL.M, PharmD, or DMD) can ignore much of the bulletin prior to the First-Professional Programs section, but should familiarize themselves with the general information on the University, as well as the section on Campus Facilities & Student Services, and the University-wide policies detailed in Rights and Responsibilities. The **Schools of Medicine, Law, Dental Medicine, and Pharmacy** a

Program	Degree(s) Offered	Academic Center¹	Program	Degree(s) Offered	Academic Center¹
Health, Physical, and Recreation Education	MS, PhD	Education	Nursing	PhD	Nursing
Health Promotion and Development	MSN	Nursing	Occupational Medicine	MPH	GSPH
Health Promotion and Education	MHPE	Education/GSPH	Occupational Therapy	MOT	SHRS
Health and Rehabilitation Sciences	MS	SHRS	Orthodontics	Certificate, MDS	Dental Medicine
Health Services Administration	DrPH	GSPH	Periodontics	MDS	Dental Medicine
Hispanic Languages & Literatures	MA, PhD	FAS	Petroleum Engineering	MSPE	Engineering
History	MA, PhD	FAS	Philosophy	MA, PhD	FAS
History & Philosophy of Science	MA, PhD	FAS	Pharmaceutical Sciences	MS, PhD	Pharmacy
History of Art & Architecture	MA, PhD	FAS	Pharmacy	PharmD	Pharmacy
Human Genetics	MS, PhD	GSPH	Physical Therapy	MPT	SHRS
Immunology	MS, PhD	Medicine	Physics	MS, PhD	FAS
Industrial Engineering	MSIE, PhD	Engineering	Policy Research and Analysis	MPA	GSPIA
Infectious Diseases & Microbiology	MPH, MS, DrPH, PhD	GSPH	Political Science	MA, PhD	FAS
Information Science	Certificate, MSIS, PhD	SIS	Prosthodontics	MDS	Dental Medicine
Instruction and Learning	MA, MAT, MEd, MS, EdD, PhD	Education	Psychology	MS, PhD	FAS
Intelligent Systems	MS, PhD	FAS	Psychology in Education	MA, MEd, PhD	Education
International Business	MBA/MIB	Business	Public and International Affairs	PhD	GSPIA
International and Comparative Law	LLM	Law	Public and Nonprofit Management	MPA	GSPIA
International and Comparative Law	Certificate	Law	Public Policy and Management	MPPM	GSPIA
Italian Languages & Literatures	MA	FAS	Radiation Health	Certificate	GSPH
Latin American Social and Public Policy	Certificate	UCIS	Rehabilitation Engineering	Certificate	Engineering
Latin American Studies	Certificate	UCIS	Rehabilitation Science	PhD	SHRS
Law	JD	Law	Rehabilitation Technology	Certificate	SHRS
Library and Information Science	Certificate, MLIS, PhD	SIS	Religion (Cooperative Program in the study of)	PhD	FAS
Linguistics	MA, PhD	FAS	Religious Studies	MA	FAS
Management of Information Systems	MS	Business	Rhetoric and Communication	MA, PhD	FAS
Management Program for Health Professionals	Certificate	Nursing/GSPH	Russian Studies	Certificate	UCIS
Manufacturing Systems Engineering	MSMfSE	Engineering	Security and Intelligence Studies	MPIA	GSPIA
Materials Science & Engineering	MSMSE, PhD	Engineering	Slavic Languages & Literatures	MA, PhD	FAS
Mathematics	MA, MS, PhD	FAS	Social Work	MSW, PhD	Social Work
Maxillofacial Prosthetics	Certificate	Dental Medicine	Sociology	MA, PhD	FAS
Mechanical Engineering	MSME, PhD	Engineering	Soviet Studies	Certificate	UCIS
Medicine	MD	Medicine	Statistics	MA, MS, PhD	FAS
Medieval and Renaissance Studies	Certificate	FAS	Studies of Law	MSL	Law
Molecular Pharmacology	MS, PhD	Medicine	Teaching English to Speakers of Other Languages	Certificate	FAS
Molecular Virology & Microbiology	MS, PhD	Medicine	Telecommunications	Certificate, MST	SIS
Multidisciplinary MPH	MPH (limited enrollment)	GSPH	Theater Arts	MA, MFA, PhD	FAS
Music	MA, PhD	FAS	Urban and Regional Affairs	MPA	GSPIA
Neurobiology	MS, PhD	Medicine	West European Studies	Certificate	UCIS
Neuroscience	MS, PhD	FAS	Women's Studies	Certificate	FAS
Nurse Anesthesia	MSN	Nursing			

¹ Acronyms for academic centers are as follows:

FAS = Faculty of Arts and Sciences

GSPH = Graduate School of Public Health

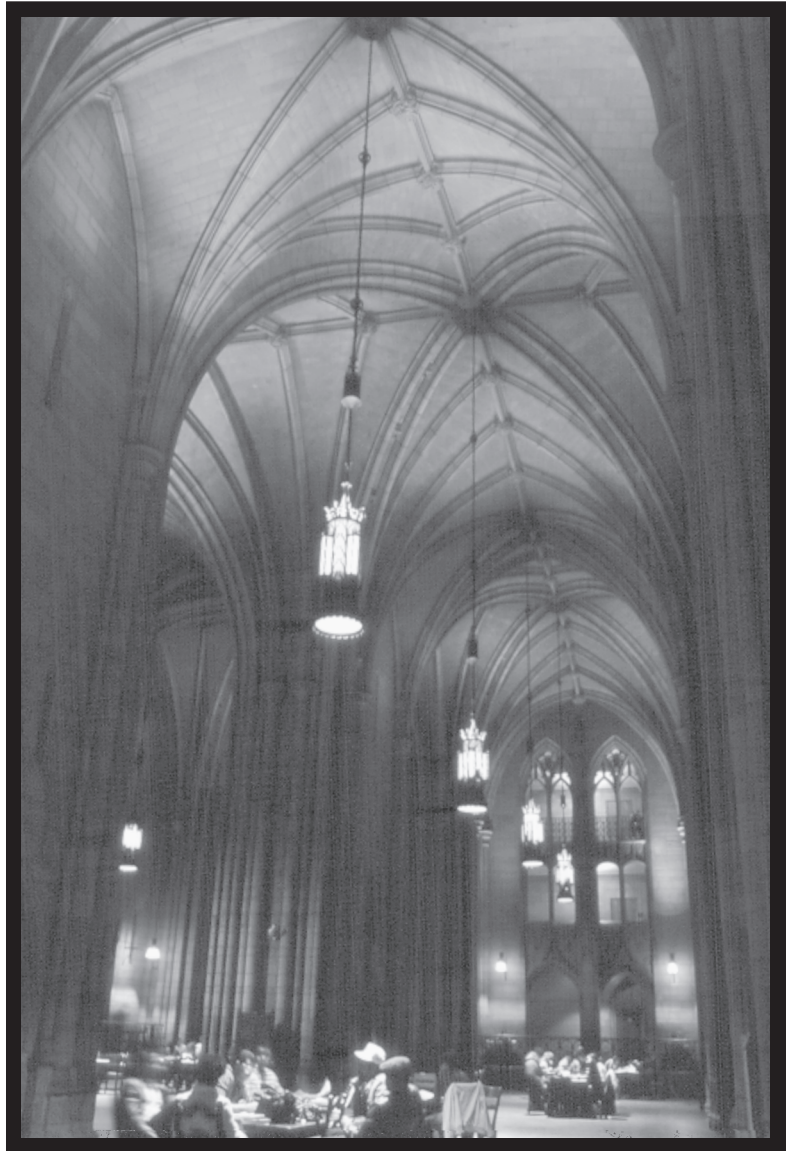
GSPIA = Graduate School of Public and International Affairs

SHRS = School of Health and Rehabilitation Sciences

SIS = School of Information Sciences

UCIS = University Center for International Studies

UNIVERSITY OF PITTSBURGH



GRADUATE PROGRAMS

GRADUATE SCHOOL OF PUBLIC HEALTH

The mission of the **Graduate School of Public Health (GSPH)** is twofold:

- 1) To promote health and prevent disease in individuals and their communities by anticipating and responding to public health needs through research, teaching, and public service.
- 2) To enhance current public health initiatives through interaction and collaboration with other health care disciplines and organizations.

The school's objective is to prepare professionals either to originate and carry out programs in the broad field of public health, which includes the entire range of environmental and personal health services, or to contribute to broadening the base of knowledge in the sciences that support public health action. **GSPH** undertakes research and teaching of fundamental principles derived from the mathematical, biological, social, behavioral, and physical sciences that underlie public health activities.

GSPH was founded in 1948 and is now one of 29 U.S. schools accredited by the Council on Education for Public Health. It consists of the departments of Biostatistics, Environmental and Occupational Health, Epidemiology, Health Services Administration, Human Genetics, and Infectious Diseases and Microbiology. Programs and specialty tracks are detailed under individual department sections below. Courses of study lead to the following degrees or certificates: Master of Public Health, Master of Science, Master of Health Administration, Master of Health Promotion and Education, Doctor of Public Health, Doctor of Philosophy, Certificate in Environmental Health Risk Assessment, and the Certificate in Radiation Health (earned with MS degree). Centers such as the Health Policy Institute, the Center for Research on Health Care, the Center for Public Health Practice, and the Center for Minority Health, offer specialized research and training opportunities. There are also joint degrees offered with the **Schools of Education, Law, Business, Public and International Affairs**, and **Social Work**, and with the Pittsburgh Theological Seminary.

The **Graduate School of Public Health** collaborates with other University units, especially the other schools of the health sciences. The school integrates its facilities and resources with a variety of other graduate programs, such as anthropology, biochemistry, sociology, psychology, engineering, business administration, social work, public and international affairs, history, education, computer science, and law. In addition, the school relates to the University of Pittsburgh Medical Center, whose resources afford an opportunity for training students in research involving, for example, mental health, epidemiology, health services administration, genetics, microbiology, and radiation and health physics.

The school also relates its teaching and research programs closely to state, regional, and local organizations such as the Allegheny County Health Department and a number of other institutions, voluntary agencies and organizations, and local, national, and international agencies that provide, coordinate, or manage health services. The school enjoys an equally close association with health programs in many of the industries located in the community.

CONTACT INFORMATION

Office of Student and Alumni Affairs
Graduate School of Public Health
 114 Parran Hall
 University of Pittsburgh
 Pittsburgh, PA 15261
 Phone: (412) 624-3002
 Fax: (412) 624-3755
 E-mail: stauff@gsphdean.gsph.pitt.edu
 Web site: <http://www.pitt.edu/~gsphhome/>

ADMISSIONS

The school uses a self-managed application system, which requires applicants to collect all necessary materials (with the exception of standardized test scores, which must be sent directly from the testing service) and to submit them in one package. The same application is used for all programs except the Master of Health Administration (MHA) and Master of Health Promotion and Education (MHPE) programs. Applications for the MHA program may be obtained by writing to the MHA program office at the **Graduate School of Public Health**, or by submitting a request by phone (412) 624-3123, fax (412) 624-3146, or E-mail: donna@gsphdean.gsph.pitt.edu. *Students interested in the MHPE program may also see the **School of Education's** section of this bulletin for admissions information. Also, students should refer to the section on Admissions: MHPE Applicants, below on page 318 under the Department of Health Services Administration.*

APPLICATION DEADLINES

Unless otherwise noted by individual programs, it is suggested that completed applications from U.S. citizens be submitted by May 1 for Fall Term admission, by October 1 for Spring Term admission, and by April 1 for Summer Term admission. Foreign applications should be submitted approximately one month earlier than each of these deadlines to allow for additional processing by the Office of International Services.

MINIMUM ADMISSION REQUIREMENTS FOR ALL APPLICANTS

All applicants must hold at least a bachelor's degree from an accredited college or university (or the equivalent of a U.S. bachelor's degree) and have earned at least a B average (a quality point average of 3.00 on a 4.00 scale) in the total undergraduate program. Grades obtained in certain academic courses, such as those in the applicant's major field, are given greater weight than those in courses with less relevance for the applicant's program. If students with less than a B average present alternative evidence of superior ability, they may be considered for full graduate status.

All applicants to the **Graduate School of Public Health** must have completed with a grade of C or higher three college credits in human biology and three college credits in algebra or higher-level mathematics.

General admission requirements for the MPH, MS, PhD, and DrPH degrees follow. In addition, applicants should consult individual program descriptions following this section for more specific departmental admission requirements for those degrees, the MHA and MHPE degrees, and certificates.

GENERAL ADMISSION REQUIREMENTS FOR DEGREE PROGRAMS

Detailed below are the general admissions requirements for each of the degrees and certificates offered by the **Graduate School of Public Health** (*with the exception of admission requirements for MHA and MHPE degrees which are detailed under the Program Descriptions beginning on page 304*). Applicants should make sure that they satisfy the Minimum Admission Requirements for All Applicants detailed above, the admissions requirements detailed below for the degree being sought, and any additional admissions requirements the specific program dictates.

MASTER OF PUBLIC HEALTH (MPH)

In addition to the minimum requirements for all applicants, applicants to an MPH program must meet the following requirements:

- Possess a graduate degree from an acceptable institution in a discipline relevant to public health or a bachelor's degree from an acceptable institution with substantial knowledge in a discipline relevant to public health, either through study or experience or a combination of these.
- Have successfully completed, in addition to the biology and mathematics prerequisites, a basic computing course and six college credits in behavioral sciences, including a course in sociology or social psychology and additional credits in such subjects as sociology, anthropology, psychology, political science, or economics.

MASTER OF SCIENCE (MS)

In addition to the minimum requirements for all applicants, applicants to an MS program must possess:

- A BS or BA degree in arts, science, engineering, or nursing or other field, or an MD, DDS, or DVM from an approved school.
- Evidence of adequate training in the sciences basic to public health, or admission at the discretion of the faculty, making up deficiencies as prescribed.

Applicants may be required to take any examinations deemed necessary to satisfy the faculty as to the applicant's qualifications. In most cases, scores from the verbal, quantitative, and analytical portions of the Graduate Record Examination (GRE) must be submitted.

DOCTOR OF PUBLIC HEALTH (DRPH)

The curriculum leading to the Doctor of Public Health degree is intended to provide advanced professional preparation for leadership positions in research, training, or high-level administration in a public health setting.

Applicants to a Doctor of Public Health program must meet the following requirements:

- They must hold the MPH degree, or they must fulfill admission requirements for the MPH and also must have completed the requirements for the MPH degree in the program in which they are registered in this school, or they must hold a graduate degree in a field relevant to health care or to the health sciences.
- They must demonstrate ability for leadership in their field, as well as for advancement of scientific knowledge.

- They must have the approval of the head of the program and of the department in which they propose to do a dissertation.

DOCTOR OF PHILOSOPHY (PHD)

The Doctor of Philosophy degree is awarded to students capable of conducting independent research, carrying out teaching assignments, and supervising graduate students in their research in public health. This degree may be earned in the programs in Biostatistics, Environmental and Occupational Health, Epidemiology, Human Genetics, and Infectious Diseases and Microbiology.

Applicants to a PhD program must meet the following requirements:

- They must possess a graduate or bachelor's degree in a field relevant to the PhD program to which they are applying.
- They must have had sufficient courses in mathematics and the biological and social sciences.
- They must have had sufficient prerequisite courses in the field to which they are applying.
- They must submit scores on the verbal, quantitative, and analytical portions of the GRE if they do not have a previously earned master's degree.

CERTIFICATE PROGRAMS

Applicants to the certificate programs in Radiation Health and Environmental Health Risk Assessment should see admission requirements for the Department of Environmental and Occupational Health. Applicants to certificate programs offered by the Department of Health Services Administration should see information about the certificates listed below under that department.

APPLICATION PROCEDURE: DEGREE PROGRAMS

In addition to following any application requirements and procedures detailed under the relevant program, applicants should include the following in their completed applications (for all but MHA and MHPE programs):

- All relevant forms (application form, course prerequisite form). Foreign applicants must also complete the Affidavit of Support.
- Official transcripts of all post-secondary academic work, whether or not a degree was earned. Transcripts in languages other than English must be accompanied by an official translation into English.
- Recommendation forms. Two letters are required unless a program requires more.
- Statement of professional goals.
- The application fee of \$50 for U.S. citizens and permanent residents or \$60 for foreign applicants. Checks should be payable to the University of Pittsburgh.
- Copies of required standardized test scores should be sent to the Office of Student Affairs (*see Contact Information on page 307*) by the testing agency. In general, all students without an earned master's or higher degree must submit scores for the GRE, although programs may require the scores of any applicant. (See departmental admissions requirements for details. Applicants to the MHA

program must submit scores for the GMAT examination.) Some programs permit substitution of LSAT, MCAT, or DAT scores for the GRE scores.

- Foreign applicants whose native language is not English must submit scores for the Test of English as a Foreign Language (TOEFL). Applicants must have a level of English proficiency reflected by a score of at least 213 or greater (computer-based test) or 550 or greater (paper-based test). *For further details, see English Language Proficiency Requirements on page 4.*

Application materials and procedures for MHA and MHPE programs are described in the sections for those programs that follow.

Completed applications to the MPH, MS, PhD, and DrPH programs are sent to program admissions committees for review, and then to a school-wide admissions committee member for second review.

APPLICATION PROCEDURE: NON-DEGREE STATUS APPLICANTS

Applicants for non-degree status must submit:

- The completed application form.
- Official transcripts of all post-secondary work.
- The application fee of \$50 for US citizens and permanent residents or \$60 for foreign applicants.
- Foreign applicants must submit the completed Affidavit of Support and have official TOEFL scores sent to the Office of Student Affairs.
- A copy of the cover letter accompanying the non-degree application form signed by the applicant as an indication that the policy on non-degree study has been read. (Non-degree study does not guarantee admission; non-degree applicants may take a maximum cumulative total of 12 credits; acceptance of non-degree credits after admission is the prerogative of the student's program.)

FINANCIAL ASSISTANCE

The availability of non-loan financial assistance varies considerably among the school's academic departments. For example, graduate student assistantships may be awarded to almost all of the students in some programs and may be virtually nonexistent in others. To inquire about the availability of funding, students should contact the intended program of study. Foreign students are not eligible for scholarships or student loans, although most departments have student assistantships for which foreign students may qualify. (See **GSPH** policy on student assistantships, **GSPH** Web page.)

Certain academic programs have a limited number of fellowships or traineeships for qualified students enrolled in those programs. Again, students should contact the program of study to inquire about available aid.

Eligible students may contact the University's Office of Admissions and Financial Aid for information on applying for student loans. *See the Financial Aid section of this bulletin on page 7 for further details.*

ACADEMIC STANDARDS

Students are expected to exhibit honesty and to uphold the ethical standards of public health professionals. Each student's academic record is reviewed at the end of each term by the faculty members of the Admissions and Student Performance Committee. A student who is not in satisfactory academic standing will be placed on probation and may be subject to dismissal. Students should refer to the **GSPH** Web page for the school's academic performance standards.

GRADING POLICIES

The **Graduate School of Public Health** follows the University's letter grade system in evaluating student performance in course work, though a variety of options are detailed below.

For all school-wide core courses in the **GSPH**, the Honors/Satisfactory/Unsatisfactory (H/S/U) options are used and these grades carry no quality points. (An exception is made for Biostatistics 2041, which is a substitute for the core course Biostatistics 2011, and for HSADM 2505, which is a substitute for HSADM 2502). The usual letter grades — A, B, C etc. — are assigned for Biostatistics 2041 and HSADM 2505.)

All **GSPH** courses, in addition to school-wide core courses, will be available on an H/S/U option for individual students. To encourage students to supplement their major requirements with challenging courses in disciplines removed from their areas of primary concentration, students are permitted to select one elective per term (from among letter-graded courses which do not fulfill his/her degree requirements) to be graded by the H/S/U option.

Students electing to take a course on an H/S/U option basis or on an audit (N) basis must register for the course as for any other course, and must also complete a grade option form in the Office of Student Affairs and obtain the instructor's permission to audit the course. Students receive a grade of N for audited courses and receive no academic credit for the course.

Detailed discussion of University Grading System and Grading Options is available on pages 19 and 20 of this bulletin.

COURSE REPEAT

A student may repeat a course in which a grade of B- or lower is received if authorized by the student's advisor. Students may not repeat a school-wide core course or required departmental course more than once (i.e., course may only be taken twice), and students who fail a school-wide core course or required departmental course twice are subject to dismissal. (See **GSPH** *academic dismissal and probation guidelines on Web page*. See also *Repeating Courses on page 20 for more information.*)

QPA CALCULATION

In general, a student's Quality Point Average (QPA) is obtained by dividing the total number of letter grade credits taken in the graduate program into the total number of quality points earned in the graduate program. Usually only letter grades with QPA values are used to compute the QPA, but for courses that are not school-wide core courses and which are taken under the H/S/U option, students who receive a U grade will have the grade included in their QPA with a value of 0 points.

Courses taken to correct undergraduate course deficiencies are not included in the calculation of the QPA.

ADVANCED STANDING AND TRANSFER CREDITS

For details on advanced standing and transfer credits, MS and doctoral applicants should see the section on Allowable Credits on page 17 of this bulletin.

Applicants to the MPH, MHPE, and MHA programs may request transfer of up to one-third of their required credits for approved graduate courses taken elsewhere. Acceptance of transfer credits is at the discretion of the program.

Acceptance of a maximum of 12 credits taken as a non-degree student at **GSPH** is at the discretion of the program.

Students enrolled at **GSPH** may take credits in another school or institution, providing that his/her department has approved application of those credits to the degree requirements. In all cases, any combination of advanced standing credits and credits taken from another school or institution during enrollment at **GSPH** may not exceed the limit for advanced standing credits (i.e., 1/3 of the credits required for the MPH, MHA, or MHPE; six credits for the MS; or 36 credits for a doctoral degree).

ADVISING AND PLACEMENT

The **Graduate School of Public Health** considers effective academic advising an essential component of educating students. Departments have the primary responsibility for identifying and assigning to each student a major advisor, who, in consultation with the student, plans a program of study and research in accord with school and departmental guidelines. Departments are expected to provide students with a copy of school and departmental regulations appropriate for their program, and students are expected to become familiar with University, **GSPH**, and department regulations concerning graduate study and to accept responsibility for the completion of all degree requirements.

The student's academic advisor is to direct and assist the student in the selection of classes and the conduct of research. Waivers from program requirements are processed at the program level, and waivers from school requirements by the Office of Student Affairs. The Application for Graduation is processed through the **GSPH** Office of Student Affairs after clearance has been received from the academic advisor. A student will be certified for graduation only after the academic advisor has confirmed that all degree requirements have been met.

For students required to take preliminary, comprehensive, or defense examinations, the academic advisor, in consultation with the student, designates faculty members to act as the examining committee.

Each doctoral student, together with the student's doctoral committee, is responsible for assuring accomplishment of all elements of the student's course of studies, including the core requirements, the research tools requirement, course work in the field of specialization, advanced standing, the qualifying and comprehensive examinations, and the dissertation overview and its final oral defense.

All **GSPH** programs, as well as the Office of Student Affairs, provide students with information on employment opportunities. Departments remain the primary source of information on job and other career information.

GENERAL DEGREE REQUIREMENTS

The following section details the general requirements for all degrees, general requirements for master's degrees, and general requirements for doctoral degrees. (Exceptions are MHA, MHPE, and EOH certificate requirements, which are detailed under the relevant department descriptions below.)

GENERAL REQUIREMENTS (ALL DEGREES)

Students in the master's-level programs and some doctoral programs are expected to demonstrate competence in the fundamentals of public health, with an understanding of human-environment relationships; techniques of investigation, measurement, and evaluation; and health services. The subject areas covering these fundamentals are currently defined as human biology, behavioral sciences, environmental health, biostatistics, epidemiology, and health services administration.

Students should consult individual program descriptions for program core course requirements. Students in some programs may be automatically exempt from certain core courses. Students who wish to request exemption from a core course must submit a waiver form (available in Office of Student Affairs, Room 114 Parran Hall).

GSPH CORE COURSES AS OF JANUARY 2000:

BIOST	2011	Principles of Statistical Reasoning
BIOST	2041	Introduction to Statistical Methods 1 *
IDM	2011	Health, Disease, and Environment 1
EOH	2012	Health, Disease, and Environment 2
EPIDEM	2110	Principles of Epidemiology
HSADM	2000	Introduction to Health Services Administration
HSADM	2502	Social and Behavioral Aspects of Public Health Practice
HSADM	2505	Social and Cultural Factors in Health and Illness **

* substitute for BIOST 2011 in some programs

** substitute for HSADM 2502 in some programs

GENERAL REQUIREMENTS FOR MASTER'S DEGREES

All master's degree-seeking students must:

- Fulfill the core requirements including the completion and submission of the thesis or essay (see below).
- Fulfill the core program requirements, including required courses, and any field work, and examinations.

■ Thesis or Essay

All master's students with the exception of MHA candidates must complete a minimum of two essay/special study credits and meet the master's thesis/essay requirement. Program listings will specify the type of master's paper required. The form of the essay or thesis must be in accord with specifications stipulated in the University's Style and Form Manual. One unbound copy of the approved thesis or essay must be deposited in the Office of Student Affairs, 114 Parran Hall, before the student will be certified for graduation.

MPH students who have been permitted to submit an article accepted for publication in lieu of the essay must meet the margin requirements and submit a committee signature sheet and title page patterned after that in the Style and Form Manual. If there are multiple authors, a statement should be included explaining the role of each author.

GENERAL REQUIREMENTS FOR DOCTORAL DEGREES

For an overview of University-wide regulations for doctoral students, see *Regulations Pertaining to Doctoral Degrees on page 23*. All GSPH doctoral students must:

- Complete specific courses as determined by the program or the school, including at least three credits of 3100 (dissertation) or one term of FTDS (full-time dissertation study).
- Fulfill the University’s residency requirement.
- Satisfactorily complete the preliminary/qualifying examination, the comprehensive examination, and the dissertation examination.
- Meet the requirement for proficiency in tools of research, e.g. computers, as determined by the individual departments and verified to the Office of Student Affairs in writing by the academic advisor.

■ Doctoral Committees

The student’s major advisor proposes, for approval by the department chair and the Assistant Dean for Student Affairs, the following committees:

- Preliminary/Qualifying Examination: Must include at least five University of Pittsburgh faculty representing at least three departments. All members must have graduate faculty status.
- Comprehensive Overview and Dissertation Examination: Must include at least four University of Pittsburgh faculty representing at least two departments. Three of the four members, including the committee chair, must have graduate faculty status.
- Doctoral Examinations (Preliminary/Qualifying, Comprehensive, Final Oral)

A description of these and other requirements appears in the *Regulations Pertaining to Doctoral Degrees*. Individual programs will provide specific information on fulfillment of these requirements.

A student pursuing the Doctor of Public Health degree cannot take the preliminary/qualifying examination until all the core course requirements — as interpreted by the department — for the Master of Public Health degree have been completed.

MAJOR AND DEGREE OPTIONS

The programs and degrees offered to which students may be admitted are shown below.

Department/ Program (Departments in Bold)	Master’s Degrees	Doctoral Degrees	Certificate
Biostatistics	MS, MPH	PhD, DrPH	
Environmental & Occupational Health	MS, MPH	PhD	Risk Assessment, Radiation Health (with MS degree)
Occupational Medicine	MPH		
Epidemiology	MS, MPH	PhD, DrPH	
Health Services Administration		DrPH	
Behavioral and Community Health Sciences	MPH, MPH/MHA, MPH/MPIA		

Department/ Program	Master’s Degrees	Doctoral Degrees	Certificate
Health Administration	MHA*, MHA/MBA*, MHA*/MPH		
Health Promotion and Education	MHPE**		
Health Services Administration and Theology	MPH/MDiv***		
Law and Health Policy	JD/MPH****		
Public Health Social Work	MPH/PhD*****		
Human Genetics	MS	PhD	
Genetic Counseling	MS		
Infectious Diseases and Microbiology	MS, MPH	PhD, DrPH	
Multidisciplinary	MPH		

* with Katz Graduate School of Business
 ** with School of Education
 *** with Pittsburgh Theological Seminary
 **** with School of Law
 *****with School of Social Work

■ DEPARTMENT OF BIostatISTICS

Biostatistics is one of the significant tools for the study of variation in the life cycle of living organisms and the essential tool for the quantitative study of human growth, reproduction, morbidity, and mortality. The proper application of the theory of biostatistics requires a clear understanding of the concepts underlying statistical analysis. Training focuses on the theory and techniques for collecting, analyzing, and interpreting quantitative data related to the fields of public health and medicine. Students are given the opportunity to apply their knowledge in a consulting practicum and in both departmental and interdisciplinary research projects. Primary areas of application include clinical trials, breast and colo-rectal cancer, occupational and environmental health, diagnostic radiology, psychiatric research, infectious diseases in children, and organ transplantation. Primary areas of focus for methodological research include survival analysis, stochastic models of tumor growth, statistical methods in epidemiology, longitudinal data analysis, statistical computing, outcomes research, and ROC curve analysis. The majority of students gain experience by participating with faculty as a graduate student researcher (GSR). In addition to the mainframe computer and student microcomputer laboratories provided by the University, the department maintains a microcomputer laboratory for student usage and provides microcomputers in GSR offices.

CONTACT INFORMATION

Chairperson: Howard E. Rockette, PhD
 Department Office: 318C Parran Hall
 Phone: (412) 624-3022
 Fax: (412) 624-2183
 E-mail: biostat@pitt.edu

ADMISSIONS

In addition to University and general GSPH requirements, admission to all Biostatistics degree programs requires two semesters of calculus, a course in biology, a basic computing course, and the Graduate Record Examination. In some cases, course deficiencies can be satisfied the first term. The MPH and DrPH degrees also require six credits in biology, six credits in social science and a professional degree and/or background in health.

FINANCIAL ASSISTANCE

The department awards approximately 25 graduate student research assistantships and three teaching assistantships each year. These awards involve an average of 20 hours of work per week and include a monthly stipend; a scholarship covering tuition and medical insurance is included in the award based on merit. First year students and foreign students are eligible.

REQUIREMENTS FOR MASTER'S DEGREES

The department awards both an MS and MPH degree. Students must complete 36 credit requirements for the master's degree plus a thesis and a comprehensive examination. The course requirements for the MS include more courses in statistical theory while course requirements for the MPH permit a wider range of public health courses.

REQUIREMENTS FOR THE DOCTORAL DEGREES

Students must complete 72 credits of formal course work that includes both department and school requirements. Students must pass a qualifying examination to be admitted to candidacy. The remainder of the requirements entail a comprehensive examination, successful completion of a research dissertation, and a final oral examination.

DEPARTMENT OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH

The mission of the Department of Environmental and Occupational Health is to study and elucidate the health effects of exposure to chemical, physical, and biological agents encountered in the workplace or general environment. To accomplish this goal, the department supports a broad range of research, training, clinical, and service activities. The principal research focus is to reduce the uncertainty in estimating human health risks associated with exposure to potentially harmful agents. To accomplish this, the department is at the forefront of research on molecular dosimetry and toxicology. Training activities include a comprehensive curriculum in environmental and occupational health leading to an MS, MPH, or PhD degree. Clinical activities emphasizing preventive approaches are carried out by the department's Division of Occupational and Environmental Medicine.

An MPH in Occupational Medicine is also available for physicians—either independently or as a part of the Occupational Medicine residency. A certificate program in Radiation Health is offered for students enrolled in the MS program. A Risk Assessment track is offered for currently employed environmental and occupational health practitioners. Students in the risk assessment track are introduced to areas of hazard identification (toxicology, structure-activity relationships, epidemiology); exposure assessment (environmental fate and transport, biological markers); risk characterization (quantitative and qualitative measures of uncertainty, Monte Carlo methods); risk management (federal risk management policy, EPA and OSHA approaches); and risk communication.

The Molecular Toxicology track is an integrated, modern curriculum combining the classical subdisciplines of toxicology, namely biochemistry/bioorganic chemistry, organ systems toxicology, pathology, pharmacology, and physiology with the rapidly emerging areas of cellular and molecular biology, genetics, molecular biomarkers and dosimetry, and computer-based toxicological and toxicokinetic modeling. This program was designed to provide students in the department with a modern and rigorous understanding of the molecular

mechanisms underlying toxicological processes. This scientific training is set in a public health context in which the students will also be trained in biostatistics and epidemiology to provide an understanding of how these laboratory-based disciplines can be extended and applied to the study of exposed human populations. This track combines existing courses in the department, the **Graduate School of Public Health**, and the University to provide thematic teaching and laboratory focus centered on the training of doctoral-level students in the department.

The computational toxicology area of specialization within the PhD and MS programs of Environmental and Occupational Health is designed to provide graduate students and postdoctoral students with knowledge of state-of-the-art computational approaches and techniques to explore the molecular mechanisms of toxicology; train graduate students and postdocs in the techniques that will enable them to assess the potential toxicity of new or untested chemicals and to formulate regulatory policy regarding the toxic effects of chemicals; and enable graduates to elucidate the strengths and weaknesses of existing computational techniques. Courses are taken in the departments of Environmental and Occupational Health, Epidemiology, Biostatistics, Computer Science, Pharmacology, and Pathology.

Consultative and service activities on a variety of fronts are conducted by departmental faculty, staff, and students to address regional, national, international, and societal needs related to environmental and occupational health.

MAJOR EDUCATIONAL AREAS AND PROGRAMS

The Department of Environmental and Occupational Health offers the following master's, doctoral, and certificate programs:

- Master of Science in Environmental and Occupational Health with study in the following areas:
 - 1) General
 - 2) Radiation Health
 - 3) Environmental Health Risk Assessment
 - 4) Computational Toxicology
- Master of Public Health with study in:
 - 1) Occupational Medicine
 - 2) Environmental Health Risk Assessment
- Doctor of Philosophy in Environmental and Occupational Health with study in the following areas:
 - 1) General
 - 2) Computational Toxicology
 - 3) Molecular Toxicology (Interdisciplinary Biomedical Program, please see **School of Medicine** section of this bulletin for information)
 - 4) Radiation Health
- Certificate in Radiation Health (must be earned in conjunction with MS in Environmental and Occupational Health – Radiation Health track)
- Certificate in Environmental Health Risk Assessment

RESEARCH PROGRAMS

The department conducts a broad range of active research programs in basic and applied sciences and in clinically oriented topics. In addition to primary research within the department, faculty participate in a wide variety of collaborative projects with other investigators in the University of Pittsburgh's **Graduate School of Public Health**, **School of Medicine**, and **School of Engineering**; in other major universities; and in governmental agencies including the National Institutes of Health and the Environmental Protection Agency. Current research programs include: protein and DNA adducts formed by hazardous chemicals; internal dosimetry and biomarkers of exposure; molecular approaches to identify individual susceptibility factors; expert computer systems to analyze structure-activity relationships of therapeutic agents and toxicants; respiratory physiology and inhalation toxicology; oxidative damage from chemical or radiation exposure; health effects of global change; free radical reactions in disease; radiation health; immunotoxicology and mechanisms of occupational asthma; reproductive and developmental toxicity; and radiopharmaceuticals.

FACILITIES

The department, as the nucleus of the University's Center for Environmental and Occupational Health and Toxicology, is housed in a suburban research park in a building that was constructed especially for toxicology research. Courses are given at both the Pittsburgh campus and at the research center in Blawnox, O'Hara Township; laboratory research activities are conducted at the Blawnox center. Shuttle services provide transportation for students, faculty, and staff between the main campus and the research facilities. Computer networks serve to further join the two facilities.

CONTACT INFORMATION

Chairperson: Bruce R. Pitt, PhD
 Center for Environmental and Occupational Health and Toxicology
 260 Kappa Drive
 Pittsburgh, PA 15238
 Phone: (412) 967-6500
 Fax: (412) 624-1020
 E-mail: tcostanzo@server.ceoh.pitt.edu

Division of Occupational and Environmental Medicine
 A729 Crabtree Hall
 University of Pittsburgh
 Pittsburgh, PA 15261
 Phone: (412) 624-3155
 Fax: (412) 624-3040

ADMISSION

Each applicant for admission to an EOH departmental program is considered individually. Course work in mathematics and the physical, chemical, and biological sciences must be documented in the undergraduate transcript. Acceptable undergraduate training includes a bachelor's degree in the physical, chemical, or biological sciences with a minimum of two courses each in organic chemistry, biology, physics, and calculus. Applicants to the computational toxicology track must have successfully completed at least one computer language programming course.

Applicants for admission must also take the Graduate Record Examination (GRE) unless the candidate already has a graduate or

professional degree. Consistent with **GSPH** requirements, students are ordinarily required to have at least a 3.00 (on a 4.00 scale) overall undergraduate QPA, and a 3.00 QPA in the basic science courses (chemistry, physics, biology, mathematics).

Applicants for the MPH in Occupational Medicine must hold an MD or equivalent degree from an acceptable institution.

NOTE: Some tracks may require an interview before an admission decision will be made.

Applicants to the PhD track in Molecular Toxicology apply to the Interdisciplinary Biomedical Graduate Program in the **School of Medicine**. (See **School of Medicine** section of this bulletin.) Following one year of interdisciplinary study, students enroll in the Department of Environmental and Occupational Health at the **Graduate School of Public Health**, with specialization in Molecular Toxicology. The PhD is awarded by the **Graduate School of Public Health**.

PROGRAM REQUIREMENTS

Students are required to take departmental core courses in each degree program in addition to **GSPH** school core course requirements. Please contact the department's Student Affairs Administrator for more information on individual tracks.

MASTER OF SCIENCE AND MASTER OF PUBLIC HEALTH (NON-PHYSICIAN) STUDENTS

Students in master's degree programs must complete the prescribed course work plus an independent study under the supervision of a faculty member and a comprehensive examination (38 credits total). Most full-time students complete degree requirements in one year. Should the MS student wish to concentrate in the radiation health area with the intent of entering the Health Physics profession, additional courses may be taken. These lead to a certificate in Radiation Health. Attendance and participation in departmental seminars and journal clubs are required.

PHD STUDENTS

PhD students must complete a block of courses comprising school requirements and department requirements for a total of 72 credits. Attendance and participation in departmental seminars and journal clubs are required. During the first year of study, students have an opportunity to work in two different research laboratories. Following the comprehensive examination at the completion of the course work, an independent research project is chosen. A passing performance in a set of qualifying examinations completes the admission to candidacy for the PhD. Students then spend the remainder of the graduate program completing the research project and taking selected elective courses. Dissertation preparation and defense complete the PhD requirements. *See General Requirements for Doctoral Degrees on page 311 and Regulations Pertaining to Doctoral Degrees on page 23 for more information.*

MPH STUDENTS IN OCCUPATIONAL MEDICINE

Physicians in the Master of Public Health program in Occupational Medicine complete a minimum of 48 credit hours of required and elective courses and prepare a thesis, usually a research project or comprehensive review of the literature for a selected topic. Attendance and participation in departmental seminars and journal clubs are required. The degree may be undertaken by physicians either independently or as part of the occupational and environmental medicine residency. The residency program includes a first Postgraduate Year — (PGY)(2) — composed of course work and clinical practice and a second Postgraduate Year — (PGY)(3) — that

provides practicum experience rich in exposure to the wide-ranging aspects of occupational health. At the end of the two years, the physician is eligible to take the board examination in Occupational and Environmental Medicine.

CERTIFICATE IN ENVIRONMENTAL HEALTH RISKASSESSMENT

Prior or concurrent training in BIOST 2041 and EPIDEM 2011 or equivalent course work is required, in addition to the following courses: EOH 2175; EOH 2121; EOH 2122; EOH 2106; EOH 2180; EOH 2181; Case Studies in Risk Assessment (0 credits); and 2-3 credits of electives.

CERTIFICATE IN RADIATION HEALTH

In addition to the degree requirements for the MS in Environmental and Occupational Health – Radiation Health track, students must take the following courses: EOH 2211; EOH 2223; EOH 2232; EOH 2234; EOH 2236; EOH 2237; EOH 2247; EOH 2255; EOH 2259; elective courses. A total of approximately 22 credits are required in addition to the MS requirements.

DEPARTMENT OF EPIDEMIOLOGY

Epidemiology has been defined as the application of the scientific method to the study of disease in populations for the purpose of prevention or control. It is a key basic science of public health and preventive medicine. The epidemiological method for studying a problem involves three approaches: description of the frequency and determinants of a disease in a defined population, evaluation of factors that may cause a disease, and experimental studies of the effects of modifying risk factors on the subsequent frequency of disease. A major goal of the departmental training and research program is to develop techniques that will effectively reduce mortality and morbidity.

In-depth information concerning the Department of Epidemiology, facilities, faculty research interests, course descriptions, and the like can be found on the department's Web page: <http://www.pitt.edu/~epidept/epihome.html>.

MAJOR EDUCATIONAL AREAS

Students may pursue the MS, MPH, PhD, or DrPH in Epidemiology in a variety of areas. The major areas of focus within the department are aging, alcohol, chronic disease, clinical trials, environmental epidemiology, infectious disease, molecular epidemiology, nutrition, physical activity, psychiatric epidemiology, telecommunications and public health, and women's health. Students generally take a series of core courses in epidemiology and then specialize in one of these areas. Faculty in each of these specific areas have major research and/or community service programs that provide excellent facilities for student research and field training. The physical activity and women's health tracks are among the first such tracks to be offered by an American school of public health. For more information on the available areas, see the department's Web site.

RESEARCH

The research in the Department of Epidemiology involves many different populations. The World Health Organization Center for Diabetes Registries collaborates with investigators in over 70 countries. The studies of the molecular epidemiology of insulin-dependent diabetes focus on susceptibility genes for diabetes in different populations. Studies in Nigeria evaluate the causes of hypertension. The Nutrition and Epidemiology track is a leader in clinical trials

involving the prevention of kidney failure, colonic polyps, hypertension, and coronary heart disease. The aging and chronic disease tracks are evaluating new methods of measuring cardiovascular disease among older individuals, as well as studying osteoporosis, stroke, depression, and dementia. The women's health study track includes detailed studies of menopause, obesity, exercise, diet, thrombosis, clotting factors, and behavioral attributes. The Molecular Epidemiology track represents a collaboration among the Departments of Epidemiology, Environmental and Occupational Health, and Human Genetics; it focuses on chronic disorders. There are also ongoing clinical trials in osteoporosis, exogenous hormones, and disease. Other projects include evaluation of screening for breast and cervical cancer and cardiovascular disease, as well as examination of the association of physical activity and chronic diseases in minority U.S. populations.

The epidemiology data center coordinates multi-center clinical trials and registries to evaluate new technology including coronary artery surgery, angioplasty, liver transplantation, brain resuscitation, and eye disease. The cancer epidemiology track is linked to the Pittsburgh Cancer Institute and includes research related to screening and early detection of cancer, the study of oncoproteins, dietary factors, and the risk of cancer and environmental determinants of cancer risk. The psychiatric and alcohol research track include studies of delinquency and antisocial behavior, suicide, depression, and alcohol and drug abuse, with a special emphasis on studies during pregnancy and early childhood. The infectious disease track focuses on hospital-acquired infections and, in collaboration with the Allegheny County Health Department, disease outbreaks in the community.

The Infectious Disease Epidemiology track is also jointly coordinated with the Infectious Diseases and Microbiology Program. The department maintains a close link with the Allegheny County Health Department, the Coroner's Office and the Pennsylvania State Health Department.

CONTACT INFORMATION

Chairperson: Lewis H. Kuller, MD, DrPH
 Department Office: A527 Crabtree Hall
 Phone: (412) 624-3054
 Fax: (412) 624-7397
 E-mail: kuller+@pitt.edu

Departmental Student Affairs
 Phone: (412) 624-3060
 Fax: (412) 624-1736
 E-mail: pjw+@pitt.edu

ADMISSIONS

The department accepts students with a variety of prior health-related professional degree backgrounds and a very limited number of superior students who have completed a bachelor's degree. Students may matriculate for the MPH, MS, DrPH, or PhD degree. Applicants to the MS program must have an advanced degree in a professional discipline, e.g., biostatistics or human genetics. Postdoctoral fellows may enroll in either the MPH or MS program. Baccalaureate applicants are considered only for the PhD program (average duration four to five years) except for those applicants with bachelor's degrees in nutrition (who already have credentials as registered dietitians or have a biological science background), nursing, or psychology, or those who have had professional employment with a public health agency. A one-year MPH program is available for students with a prior health-related professional degree (such as MD, DDS, nursing, or

psychology). A one-year MPH degree program is also available in nutrition and epidemiology for nutritionists who have completed their undergraduate training and have field experience, especially in a public health setting. In addition, a concurrent MPH is available for students pursuing doctoral programs at **GSPH** or other graduate and professional schools.

Applicants to the program should state the specific degree that they are seeking, the area of interest, and their need for traineeship or other financial support. Applicants lacking an advanced degree are required to take one of the following: Graduate Record Exam (GRE), Medical College Admission Test (MCAT), or the Dental College Admission Test (DCAT). These exam/test scores may also be required for applicants with advanced degrees. If so, the department will so notify.

Graduates of foreign medical schools, to be eligible for consideration, must meet one of the following criteria:

- (1) Hold a valid medical license in the United States or be eligible for medical licensure in the United States (e.g., have passed all necessary examinations and served required time in approved residency program); documentation must accompany application.
- (2) Be an outstanding candidate with appropriate background, training, and skills to justify consideration. (GRE scores are also required). Foreign students admitted to the program are required to submit evidence of financial support adequate to cover the entire program of studies. *See Graduate Admissions of International Students beginning on page 3 for more information.*

For further information on admissions, see the department's Web page at: <http://www.pitt.edu/~epidept/epihome.html>.

FINANCIAL ASSISTANCE

A limited number of graduate student assistantships and teaching fellowships are also available. Sponsored training programs at pre- and postdoctoral levels are available in aging, psychiatric epidemiology, alcohol epidemiology, and HIV prevention.

PROGRAM REQUIREMENTS: MASTER'S AND DOCTORATE CURRICULA

The student's course of study, including the sequencing of courses, is developed in conjunction with the major advisor, taking into account background, area of focus, degree program, and **GSPH** requirements. The minimum credit total is 30 for the master's programs and 72 for the doctoral programs. Prerequisites for the doctoral preliminary examination are: EPIDEM 2110, EPIDEM 2180, EPIDEM 2230, BOST 2041, BOST 2042, BOST 2093 (or PSYED 2422), plus area of focus courses selected by the faculty advisor.

All students in the Department of Epidemiology must take the **GSPH** Core Courses (*see page 323 for the **GSPH** core course list*). NOTE: BOST 2041 is required in place of BOST 2011.

DEPARTMENTAL CORE COURSES

The following are the required departmental courses for students pursuing degrees in the Department of Epidemiology.

MASTER'S PROGRAM COURSE REQUIREMENTS

EPIDEM	2170*	Epidemiology of Selected Chronic Diseases
EPIDEM	2180	Epidemiological Methods 1
EPIDEM	2181	Design of Clinical Trials
EPIDEM	2210	Special Studies (minimum of 2 credits)
EPIDEM	2230*	Epidemiological Methods 2
EPIDEM	2250	Seminar in Epidemiology
EPIDEM	2260	Epidemiological Basis for Disease Control
EPIDEM	2600	Introduction to Molecular Epidemiology
BIOST	2042	Introduction to Statistical Methods 2
BIOST	2093	Data Management and Analysis
		<i>or</i>
PSYED	2422	(see Additional Frequently Used Courses below)
HRS	1027**	Pathophysiology (or equivalent)
		<i>or</i>
NUR	2004**	Pathophysiology (or equivalent)

*Elective for master's
**If no health background (must be completed in first year)

DOCTORAL PROGRAM REQUIREMENTS

Students pursuing doctorate degrees must take the master's program courses listed above as well as the following:

EPIDEM	3100	Research and Dissertation for the Doctoral Degree (minimum of 3 credits)
		<i>or</i>
FTDR	0000	Full-time Dissertation Study (where applicable)

ADDITIONAL FREQUENTLY USED COURSES

Selection of these courses depends on the candidate's background, degree program, and area of focus.

EPIDEM	2150	Epidemiology of Cardiovascular Diseases
EPIDEM	2151	Physical Activity Epidemiology
EPIDEM	2160	Epidemiology of Infectious Diseases
EPIDEM	2161	Methods in Infectious Diseases Epidemiology
EPIDEM	2171	Cancer Epidemiology
EPIDEM	2173	Culture and Diversity in Epidemiological Research
EPIDEM	2182	Design of Clinical Trials 2: Contemporary Issues
EPIDEM	2200	Epidemiology and Health Services
EPIDEM	2213	Special Studies—Directed
EPIDEM	2220	Environmental Epidemiology
EPIDEM	2290	Biochemical Aspects of Nutrition and Disease
EPIDEM	2310	Psychiatric Epidemiology 1
EPIDEM	2320	Psychiatric Epidemiology 2
EPIDEM	2340	Epidemiologic Approaches to the Etiology and Treatment of Children's Psychiatric Disorders
EPIDEM	2350	Epidemiology of Alcohol Use and Abuse
EPIDEM	2400	Behavioral Factors in Disease
EPIDEM	2525	Nutrition Assessment Laboratory

EPIDEM	2540	Nutrition and Epidemiology of Disease
EPIDEM	2550	Methodological Issues in Behavioral Lifestyle Interventions
EPIDEM	2670	Special Topics - Injury Epidemiology
EPIDEM	2710	Epidemiology of Women's Health
EPIDEM	2711	Physiology in Women
EPIDEM	2720	Environmental Causes of Reproductive Failure
EPIDEM	2850	Introduction to Pharmacoepidemiology
EPIDEM	2900	Epidemiology of Aging
EPIDEM	2980	Biology and Physiology of Aging
BIOST	2016	Introduction to Sampling
BIOST	2019	Public Health Statistics
BIOST	2045	Statistical Methods in Public Health
BIOST	2046	Analysis of Cohort Studies
BIOST	2048	Occupational Biostatistics
BIOST	2049	Applied Regression Analysis
BIOST	2052	Multivariate Analysis
BIOST	2054	Survival Analysis
BIOST	2092	Introduction to Computing
BIOST	2095	Introduction to Database Management Systems
BIOST	2097	Data Processing and Fortran
HSADM	2555	International Health Policy and Management
HSADM	2558	Health Program Evaluation
HSADM	2561	Demographic Techniques
HSADM	2563	Community Health Assessment
HSADM	2585	Historical and Sociological Perspectives in Public Health
HSADM	3002	Health Survey Methods
HSADM	3003	Seminar in Advanced Evaluative Techniques
HSADM	3004	Integrative Seminar in Health Services Research
HSADM	3012	Research Ethics
HSADM	3015	Geographic Information Systems and Spatial Data Analysis
HUGEN	2022	Human Population Genetics
PSYED	2001	Introduction to Research Methodology
PSYED	2030	Experimental Design
PSYED	2422	Data Analysis Using Computer Packages
PSYED	3410	Applied Regression Analysis
PSYED	3471	Constructing Questionnaires and Conducting Surveys

DEPARTMENT OF HEALTH SERVICES ADMINISTRATION

The Department of Health Services Administration, created in 1948, is organized into two major divisions. The Division of Behavioral and Community Health Sciences (BCHS) prepares individuals to apply knowledge about how social, cultural, political, and behavioral factors impact upon the health of populations and on health care programs designed to serve these populations. The Division of Health Policy and Management prepares individuals for leadership and management positions throughout the domain of public health and health management.

Educational programs of the Division of Behavioral and Community Health Sciences build upon a common body of public health knowledge and social/behavioral science concepts, theories and applied research methods. The Master of Public Health (MPH) Program prepares students to assess the health status and needs of populations, formulate health policy and public health interventions and to evaluate these interventions as well as develop recommendations for improvement. Students learn and practice assessment and research skills in the context of social and behavioral change at the individual, organizational, and community levels. A program with the **School of Social Work**, the MPH/PhD in Public Health Social Work, trains social workers for leadership positions in public health systems with a focus on maternal and child health and prepares them for research and teaching posts. Students also have the option to receive the MPH and the Master of Public Administration (MPA) or the Master of Public and International Affairs (MPIA) a joint program with the **Graduate School of Public and International Affairs**.

The BCHS Division's Master of Health Promotion and Education (MHPE) Program, a joint program between the **Graduate School of Public Health** and the **School of Education**, prepares professionals to enter a variety of organizational settings to assess, plan, implement, and evaluate health promotion and disease prevention services in diverse populations. The MHPE curriculum is guided by a set of competencies, developed by the National Commission for Health Education Credentialing, which health educators are expected to master.

Affiliated directly with the University's **Joseph M. Katz Graduate School of Business**, the Division of Health Policy and Management's educational program awards the Master of Health Administration (MHA) degree. The program, with a strong managerial and organization emphasis as applied to the health field, also offers dual degree options allowing students to be granted a Master of Business Administration (MBA) granted by **Katz** or the MPH granted by the **GSPH** in addition to the MHA. Another option is the MPH/JD degree jointly awarded by the **School of Law** and the **GSPH**.

Students in the Doctor of Public Health (DrPH) Program address advanced problems in public health and the health care system and develop a strong background in research methods, allowing them to pursue career such as teaching in schools of public health or other professional schools or conducting health services research or health policy analysis in a variety of settings. Focus areas in the program are health services organization, policy, law and economics, maternal and child health, and public health gerontology and long-term care.

AFFILIATED EDUCATIONAL CERTIFICATE PROGRAMS

Students in the Department of Health Services Administration may pursue a variety of certificates to complement their area of study.

CERTIFICATION IN PUBLIC HEALTH AND AGING

The educational program is designed for students pursuing careers in public health, long-term care, or aging services. The program emphasizes theory, research, and practice with a focus on the multidisciplinary nature of gerontological public health and the potential contribution of public health to gerontology. Students enrolling in the program must be degree-seeking and must meet the entry requirements of their respective department/programs.

MANAGEMENT OF NONPROFIT ORGANIZATION CERTIFICATION PROGRAM

The nonprofit sector is composed of a vast collection of private, tax-exempt institutions providing a wide range of human services,

educational and research programs, health care, cultural and artistic programs, and many other public services. This educational program emphasizes practical as well as theoretical approaches to nonprofit organizational management and is designed for students pursuing careers in management and policy analysis in the nonprofit sector. Students may enroll in this program either as degree-seeking or as non-degree students.

CERTIFICATE IN WOMEN'S STUDIES

Graduate students in any area at the University of Pittsburgh or special students who have already completed an advanced degree at Pitt or elsewhere may apply to pursue a certificate in Women's Studies, awarded at both the master's and doctoral level by the **Faculty of Arts and Sciences**.

CERTIFICATE IN LATIN AMERICAN STUDIES

MPH students interested in Latin America may obtain a certificate in Latin American Studies upon completion of their master's program. To apply to the program, students should register with the Center of Latin American Studies (CLAS) early in their graduate programs in order to take advantage of lectures, seminars, films, and other events on Latin America. Candidates for Latin American Studies certificates also are eligible for travel and research awards.

RESEARCH FOCUS

Health Services Administration faculty, through their research programs, are improving the public health knowledge base in such areas as:

- 1) Social and behavioral factors in the utilization of health services emphasizing the interplay of cultural, political, demographic, economic, and individual factors as these facilitate or impede the access to public health services.
- 2) Political, legal, cultural, and behavioral aspects of the development of public health policy and programs.
- 3) The impact of fundamental structural changes such as managed care, both behavioral and physical, upon the utilization, quality, outcomes, and costs of health services.

The department has a state-of-the-art computer-assisted telephone interviewing system housed within the department's Office of Survey Research, which is affiliated with the University Center for Social and Urban Research. The Health Policy Institute, founded through the collaboration of the University of Pittsburgh, the Allegheny Conference on Community Development and Pittsburgh-based foundations, conducts studies and educational programs that help inform decision-makers about health care issues and options that influence health in the Pittsburgh region. The Center for Research on Health Care, operated jointly by the Department and the Division of General Internal Medicine, **School of Medicine**, conducts cost and outcomes studies of a wide range of medical and public health services.

CONTACT INFORMATION

For information about the department and its programs, visit the department's Web site: <http://www.edc.gsph.pitt.edu/hsa/>.

The following is a list of contact persons for the Department of Health Services Administration:

Edmund M. Ricci, Chair
A620 Crabtree Hall
University of Pittsburgh
Pittsburgh, PA 15261
Phone: (412) 624-3100
E-mail: hsaed@pitt.edu

DrPH & MPH
Karen S. Peterson
221 Parran Hall
University of Pittsburgh
Pittsburgh, PA 15261
Phone: (412) 624-4756
E-mail: pskph+@pitt.edu

Daniel E. Bach
227 Parran Hall
University of Pittsburgh
Pittsburgh, PA 15261
Phone: (412) 624-3107
E-mail: pau5b@pitt.edu

MPH/PhD in Social Work
Eileen Tuccillo
222 Parran Hall
University of Pittsburgh
Pittsburgh, PA 15261
Phone: (412) 624-3102
E-mail: phsw+@pitt.edu

MHPE
Karen Gamble
A-667 Crabtree Hall
University of Pittsburgh
Pittsburgh, PA 15261
Phone: (412) 624-3106
E-mail: kgam@pitt.edu

MHA and JD/MPH
Donna L. Schultz
A645 Crabtree Hall
University of Pittsburgh
Pittsburgh, PA 15261
Phone: (412) 624-3123
E-mail: dschultz@pitt.edu

ADMISSION: MPH APPLICANTS

In addition to meeting the **Graduate School of Public Health's** general admission requirements, applicants seeking the Master of Public Health degree must:

- Possess either a graduate degree from an acceptable institution and substantial knowledge in a discipline relevant to public health OR a bachelor's degree from an acceptable institution and substantial knowledge in a discipline relevant to public health, either through study or experience or a combination of these.
- Have at least one year's professional or volunteer experience in human and health service delivery and research or a degree in one of the health-related professions.
- Have attained a QPA average of 3.00 or higher in undergraduate work.
- Scores of 500 or higher on each of the verbal and quantitative portions of the Graduate Record Examination (GRE). Scores from the Graduate Management Admissions Test (GMAT), MCAT, DAT, or LSAT may be accepted as substitutes for GRE scores. International applicants are expected to score 550 or higher on the Test of English as a Foreign Language (TOEFL). The requirement to take the TOEFL may be waived if the applicant has achieved a satisfactory score on other tests of English proficiency or has received a degree from an accredited institution in the United States.

Applicants for dual degree options must meet the MPH admission requirements. The deadline for application materials for August admission is May 1 and for January admission, October 1.

ADMISSION: MPH/PHD IN SOCIAL WORK APPLICANTS

Applicants planning to pursue the MPH and a PhD in social work must meet the admission requirements for both programs. Specifically, for admission to the MPH social work training program or the MPH/PhD track, the MPH requirements are that applicants have a master's

degree in social work (MSW) from a Council on Social Work Education (CSWE)-accredited program, post-MSW professional experience (usually at least two years), and prior professional experience in health/human services setting, with particular emphasis on maternal and child health experience. Deadlines for application are the same as those for MPH applicants.

ADMISSION: MHPE APPLICANTS

In addition to **GSPH** and **School of Education** general requirements, admission requirements to the MHPE Program are a minimum QPA of 3.00 or higher, and a minimum score of 500 each on the quantitative and verbal portions of the Graduate Record Examination. The admissions committee looks carefully at the ability of the applicant to communicate both in written form (as judged by the application essay) and orally. Applicants are encouraged to schedule a face-to-face interview with the members of the committee as part of the application process. International applicants are to submit scores of 550 or higher for the verbal and quantitative sections of the TOEFL (213 or higher for the computer-based TOEFL test). Deadlines for application for admission are March 1st for August admission and October 1st for January admission.

ADMISSION: MPH/JD APPLICANTS

Applicants to the joint degree program must complete formal applications for admission to both the **School of Law** and the **Graduate School of Public Health**.

ADMISSION: MHA, MHA/MBA, AND MHA/MPH APPLICANTS

The MHA application form is required to apply for the MHA, MHA/MBA, or MHA/MPH degrees. One of the two dual-degree options can be chosen after a student is well into the MHA curriculum. Requirements for admission include a bachelor's degree from an accredited college or university, acceptable scores on the Graduate Management Admission Test (GMAT), and successful completion of at least one college-level course in (integral and differential) calculus. Full-time students can enroll in July of each year and part-time students in July, January, and throughout the academic year. Applicants are encouraged to apply as early as possible.

ADMISSION: DRPH APPLICANTS

For admission to the doctoral program, an applicant must meet the **Graduate School of Public Health's** general admission requirements. In addition, applicants must possess a master's degree in public health or its international equivalent or a graduate degree in a field relevant to the objectives of the program. Applicants also must have successfully completed the following specific course requirements: six college credits in behavioral sciences, including a course in sociology or social psychology, and additional credits in such subjects as sociology, anthropology, psychology, political science, or economics and a course in statistics equivalent to the **GSPH** course, Biostatistics 2011. Applicants are encouraged to have had mathematics through the calculus level.

Applicants must submit scores from the GRE; the minimum acceptable score is 500 on both the verbal and quantitative sections. International applicants must submit scores from the TOEFL; the minimum score required is 550 (or 213 for the computer-based test). In the application essay, applicants must articulate a clear understanding of how the program of study will benefit them in achieving their career goals,

and three professional or academic recommendations are to be submitted with the application. The Doctoral Committee only admits new students once per year – for the Fall Term (August). The deadline for application materials for Fall Term admission is March 30.

FINANCIAL ASSISTANCE

There are occasional Graduate Student Assistant (GSA) or Graduate Student Research (GSR) positions available for students enrolled in the Department's educational programs. There are also some opportunities for paid field practicum positions. In the social work training program (MPH or MPH/PhD), at least one student is funded full time through the PHSW Project annually. Students in the MPH/PhD program generally will receive financial support from the MCH training grant only during their initial three terms of study. The **School of Social Work** provides financial support during the second three terms of study and also attempts to assist students during their dissertation research phase.

Financial aid opportunities are available for students in the MHA Program through the Nathan Hershey Endowment, A. Boyd Anderson Scholarship, Western Pennsylvania Health Information Management System Society Scholarship, Fitzpatrick Scholarship, and Katz Tuition Fellowships.

REQUIREMENTS FOR MASTER'S DEGREES

The following section details the requirements for each of the master's degrees offered through the Department of Health Services Administration's educational programs.

MASTER OF PUBLIC HEALTH (MPH) REQUIREMENTS

The MPH Program is a 45-credit program requiring students to complete the **GSPH** core courses (9 credits), the division core courses (18 credits) and elective courses (18 credits). The Division Core includes courses covering subject areas in the following categories: social/behavioral theory and concepts; applied social/behavioral research methods; and experience in applying social/behavioral theories and methods.

Electives are selected from a range of courses that focus on particular issues, policies, or programs that have a social/behavioral emphasis. Students are required to complete a practicum in a public health setting and prepare an essay that demonstrates the ability to synthesize and analyze applications of social/behavioral health science concepts and methods in a public health setting through a particular policy and programmatic directive and/or intervention.

MPH/JD REQUIREMENTS

Students enrolled in the joint-degree program receive integrated training in law and public health over a three-and-one-half year period. The combined credit-hour requirements for the JD and MPH degrees obtained separately is 118 credits (88 for the JD, usually completed in six full-time terms, and 30 for the MPH, usually completed in two full-time terms). In the joint-degree program, the two degrees are awarded for a combined total of 100 credits. This reduction in credit-hour requirements is made possible by the acceptance of 12 credit hours of MPH course work toward the JD degree and the acceptance of six credit hours of JD course work toward the MPH degree. The first year of law school must be completed in a single academic year before embarking on studies in public health. Neither degree may be granted prior to the fulfillment of all requirements for the joint-degree program.

MPH/PHD IN SOCIAL WORK REQUIREMENTS

Students in the MPH/PhD Public Health Social Work Program must complete 36 credit hours of academic course work that includes a field practicum and an MPH essay. Required courses include the **GSPH** core, the BCHS Division core, and electives which must include maternal and child health courses. *For details on the requirements for the PhD component of this joint degree, see page 350 in the **School of Social Work's** section of this bulletin.*

MPH/MPA AND MPH/MPIA REQUIREMENTS

The MPH/MPA or MPH/MPIA Program requirements are such that students must meet minimum requirements for both the **GSPH** and the **GSPIA**. These include taking the required core for each of the schools and additional required courses for a total of 63 credits.

MASTER OF HEALTH PROMOTION AND EDUCATION (MHPE) REQUIREMENTS

Students in the MHPE Program must complete 45 credits of course work, including the **GSPH** core and division courses (24 credits) and required courses taken in the Department of Health, Physical and Recreation education, **School of Education** (21 credits). The required course work focuses on social/behavioral health science concepts and methods as well as courses specific to health education content areas such as stress management, lifestyle and health, mental health, exercise physiology, nutrition, and critical pedagogy for health educators. A 300-hour professional field practicum is required as well as preparation and defense of a formal, written analysis of the practicum experience as it relates to the student's course work. *See the **Health Promotion and Education Program** on page 191 of the **School of Education's** section of this bulletin for further details.*

MASTER OF HEALTH ADMINISTRATION (MHA) REQUIREMENTS

The MHA Program is a 56-58 credit program for MHA students and a 71 credit program for MHA/MBA or MHA/MPH students. Required courses for MHA students include the **GSPH** core except for particular courses where the content is incorporated in program courses offered by the **GSPH** or by the **Katz Graduate School of Business**. Other required and elective courses are those offered by the **GSPH** or by **Katz** that develop skills that contribute towards problem-solving, organization building, and interpersonal relations, and those that develop conceptual abilities that permit understanding of major public and private sector institutions and their interactions, basis resource development and allocation processes in the health sector, and relevant political and policy formulation processes in the health sector. The curriculum also helps students gain an understanding of their personal values in relation to the values of society and the professions and ethical factors in relation to societal expectations and the moral and ethical constructs that guide a manager's choices.

Students in the MHA/MBA and the MHA/MPH tracks must meet additional course requirements. Students in the MHA/MPH track must complete a master's essay.

REQUIREMENTS FOR THE DOCTOR OF PUBLIC HEALTH PROGRAM

The minimum credit requirement for the DrPH Program is 72 credits of completed course work and independent research. Twenty-four credits may be awarded for a previously earned master's degree. Twelve (transfer or advance standing) credits may be allowed for graduate work taken after earning the master's degree. All students complete a common core of courses in the following categories:

- 1) History and philosophy of health services (8 credits)
- 2) Analytical perspectives on health services (17-19 credits)
- 3) Courses in a selected focus area (19 - 21 credits). Focus areas include health services organization, maternal and child health, policy, law, and economics, and public health gerontology and long-term care.
- 4) A minimum of two dissertation credits also must be earned.

Students take a preliminary (qualifying) examination at the end of the first year of full-time course work and a comprehensive examination when the student has completed all of the required course work. Following successful completion of the comprehensive examination, the student is admitted into candidacy and begins dissertation study under the direction of a dissertation committee. The dissertation and oral defense of the dissertation must be completed within five years of the comprehensive examination. *See **General Requirements for Doctoral Degrees** on page 23 for further information.*

REQUIREMENTS FOR CERTIFICATE PROGRAMS

The following section details the requirements for the certificates available to Department of Health Services Administration students.

CERTIFICATION IN PUBLIC HEALTH AND AGING

Requirements for certification in Public Health and Aging include completion of the required core curricula in the student's respective degree program. In addition, the program requires a minimum of 15 credits which include completion of two required courses — HSADM 2532, Dimensions of Aging: Culture and Health (two credits) and HSADM 2533, Issues in Long-Term Care Services (three credits) — and 10 credits of elective courses selected from the designated listing of approved courses in the **GSPH** and the **School of Social Work**.

MANAGEMENT OF NONPROFIT ORGANIZATIONS CERTIFICATION PROGRAM

A minimum of 15 credits is required. Courses include one required course — PIA 2170, Management of Nonprofit Organizations — and electives from the designated listing of courses offered by the **GSPH** and **GSPIA**.

CERTIFICATE IN WOMEN'S STUDIES

*See **Women's Studies Program** on page 134 under the **Faculty of Arts and Sciences** for certificate requirements.*

CERTIFICATE IN LATIN AMERICAN STUDIES

*See **Latin American Studies** on page 370 under the **University Center for International Studies** for certificate requirements.*

DEPARTMENT OF HUMAN GENETICS

The Department of Human Genetics provides graduate training in the fields of human genetics and genetic counseling. The mission of the department is to discover new knowledge about the genetic determinants of human health and disease through basic and applied research; to educate students, trainees, and other interested persons in that knowledge; and to apply that knowledge to improve the health of populations, families, and patients.

The human genetics curriculum provides an understanding of basic genetic mechanisms affecting human genes, chromosomes, cells, individuals, and populations of organisms in both normal and disease states. Public health applications are achieved through the detection and quantification of the effects of intrinsic factors such as age, sex, exposure to extrinsic agents such as chemical pollutants or therapeutic agents, and by understanding gene-environmental interactions in determining the distribution of health and disease in the human population. The underlying focus is on the theory and techniques for collecting, analyzing, and interpreting quantitative data.

MAJOR EDUCATIONAL AREAS AND PROGRAMS

Courses offered by the department address the areas of human population and quantitative genetics, genetic toxicology, biochemical and molecular genetics, cytogenetics, and genetic counseling.

The principal objective of the courses in human genetics is to train students to critically examine the role of genes and genetic variation in determining the distribution of health and disease in the general population. To achieve this objective, training is provided in both experimental and statistical approaches to the direct detection or estimation of the impact of genes on the health of individuals, families and populations. Such approaches include the evaluation of the relative roles of genetic and environmental factors and their interaction in determining the distribution of disease in the population, so-called "ecogenetics." The program provides for concentrations in two areas: human genetics (MS, PhD) and genetic counseling (MS), although students in the Human Genetics track may concentrate in one of five areas: molecular and biochemical genetics and genomics research; population genetics and genetic epidemiology; cytogenetics; gene therapy; clinical genetics.

The American Board of Medical Genetics has accredited the program for all six tracks, including the PhD and MS graduates.

HUMAN GENETICS

This area is concerned with the study of the mechanisms of genetic variability and its impact on health at the population level. An important component is the study of the fraction of genetic variability that leads directly to disease or determines an individual's susceptibility to diseases caused by pathogens or adverse environments.

GENETIC COUNSELING

The objectives of the program are:

- (1) To provide a balanced program of study integrating courses in molecular genetics, medical genetics, and psychosocial and multicultural counseling including biomedical ethics.
- (2) To provide extensive direct patient contact experience in a variety of clinical placements so that the student gains an appreciation of how the practicing genetic counselor functions in different work settings.
- (3) To prepare students at the Master of Science level for entering the profession of genetic counseling and assuming the role of a professional in medical and academic settings.

This is a full-time, two-year program. Course work occurs in the first year and is followed by a ten-month clinical rotation at nearby hospitals. The clinical internship involves laboratory experience and direct patient contact.

RESEARCH

Research in the Department of Human Genetics includes studies of basic genetic mechanisms of segregation and recombination; family and population studies of normal and disease phenotypes; chromosome structure and chromosomal mechanisms in disease; physical and genetic mapping of genes to public health; interaction of genes with the environment; assessment of genetic risk; and the detection of genetic disease. Application of the knowledge is explored with research in ethics, genetic counseling and screening, as well as in therapy by gene transfer. The focus of faculty research is on human genetics but includes experimental studies in appropriate non-human animals and studies on evolution.

CONTACT INFORMATION

Ms. Jeanette Norbut
 Phone: (412) 624-3018
 Fax: (412) 624-3020
 E-mail: jnorbut@helix.hgen.pitt.edu
 Web site: <http://www.pitt.edu/~gsphhome/hgen/>

Interim Chairperson: Michael B. Gorin, MD, PhD
 Department Office: A300 Crabtree Hall
 Phone: (412) 624-3018
 Fax: (412) 624-3020
 E-mail: jnorbut@helix.hgen.pitt.edu

ADMISSION

In addition to meeting the **Graduate School of Public Health's** general admission requirements, applicants to the department should have completed courses in calculus, biology, biochemistry, and chemistry. In some cases deficiencies can be made up after admission.

FINANCIAL ASSISTANCE

All accepted students are eligible for financial aid, which may include scholarships, graduate student assistantships, and teaching fellowships.

PROGRAM REQUIREMENTS

Students are required to take all courses included in their subspecialty, pass a comprehensive examination, define and complete a research project, and write a thesis. In addition to meeting the University's requirements for the MS or PhD degrees, all human genetics students are required to take the following courses:

HUGEN	2022	Human Population Genetics
HUGEN	2030	Chemical Mutation of Mammalian Chromosomes
HUGEN	2031	Chromosomes and Human Disease
HUGEN	2034	Introduction to Human Biochemical and Molecular Genetics
HUGEN	2025	Human Genetics Seminar
HUGEN	2040	Molecular Basis of Human Inherited Disease
BIOST	2041	Introduction to Statistical Methods I
EPIDEM	2110	Principles of Epidemiology

MS IN HUMAN GENETICS REQUIREMENTS

In addition to the requirements for all human genetics students, the following courses are required of non-counseling master's students:

HSADM	2000	Introduction to Health Services Administration
HSADM	2502	Social and Behavioral Aspects of Public Health Practice

immunologic and biologic aspects of microbial pathogenesis, as well as disease control and prevention.

- (3) Programs that focus on population-based education and prevention for control of infectious diseases.

Features of the program include:

- (1) Flexible curriculum in basic, medical and prevention aspects of infectious diseases and microbiology.
- (2) Opportunities for involvement in top-rated research in molecular, immunologic, and biologic aspects of microbial infections.
- (3) Strong interaction with the microbiology and virology program at the University of Pittsburgh's **School of Medicine**.

CONTACT INFORMATION

Dr. Phalguni Gupta, Professor
426 Parran Hall
University of Pittsburgh
GSPH
Pittsburgh PA 15261
Phone: (412) 624-7998
E-mail: pgupta1+@pitt.edu

Ms. Susan Zavage
A434 Crabtree Hall
University of Pittsburgh
GSPH
Pittsburgh, PA 15261
Phone: (412) 624-3331
E-mail: srzavage@pitt.edu
Web site: <http://www.pitt.edu/~gsphhome/idm/>

ADMISSION

All admissions are for the Fall Term only. The application deadline is April 1. The department admits students to MS, MPH, PhD and DrPh degrees. *Please see University requirements for admissions on page 3 of the front section of this bulletin.*

For MS and PhD degree: Applicants should have a bachelor's or higher degree in biological sciences or a related area.

For MPH and DrPH degree: Applicants should have a health professional degree such as medicine, medical technology, nursing, public health, etc.

The Department of Infectious Diseases and Microbiology admits students applying for the MS and PhD degrees under either early or standard admission. The criteria for each admission status is detailed below.

EARLY ADMISSION INTO THE PhD AND MS PROGRAMS

Outstanding applicants for early admission should meet the following requirements:

- Enrollment in an undergraduate program at the University of Pittsburgh (undergraduates at other institutions should contact **GSPH**: at the time of publication of this bulletin, only University of Pittsburgh undergraduates are eligible for early admission).

MS IN GENETIC COUNSELING REQUIREMENTS

In addition to the requirements for all human genetics students, the following additional courses are required of counseling students:

HUGEN	2032	Cytogenetic and Molecular Genetics Techniques
HUGEN	2035	Principles of Genetic Counseling
HUGEN	2036	Genetic Counseling Internship (3 terms)
HUGEN	2038	Intervention Skills for Genetic Counselors
HUGEN	2039	Risk Calculation in Genetic Counseling

A comprehensive written examination is administered in November of the second year of training and an oral exam for counseling skills is administered in January of the second year. The 10-month clinical internship begins after the first year. The program balances studies in genetics, molecular biology, epidemiology, biostatistics, and counseling intervention. The curriculum exceeds the minimum degree requirements of the **Graduate School of Public Health** and the American Board of Genetic Counseling (ABGC). All graduates are eligible for ABGC certification.

PHD IN HUMAN GENETICS REQUIREMENTS

All PhD students in Human Genetics must take the following courses:

BIOST	2041	Introduction to Statistical Methods I
EPIDEM	2110	Principles of Epidemiology
HUGEN	2022	Human Population Genetics
HUGEN	2025	Human Genetics Seminar
HUGEN	2031	Chromosomes and Human Disease
HUGEN	2034	Introduction to Human Biochemical and Molecular Genetics
HUGEN	2040	Molecular Basis of Human Inherited Disease
HUGEN	2021	Special Studies
HUGEN	3010	Research and Dissertation for Doctoral Degree

And one of the following:

HUGEN	2033	Quantitative Genetics
HUGEN	2048	Linkage and Analysis in Human Genetics

In addition, a list of suggested elective courses is available from the department.

DEPARTMENT OF INFECTIOUS DISEASES AND MICROBIOLOGY (IDM)

The mission of the Department of Infectious Diseases and Microbiology is to conduct research, teaching, and service that will enhance the control of infectious diseases in the human population. Our goals to accomplish this mission include:

- (1) Research programs that focus on understanding the mechanisms of pathogenesis of microbial infections at the cellular and molecular level as they relate directly to developing methods for disease prevention and treatment.
- (2) Integrated teaching programs that are devoted to the education and training of graduate students in various molecular,

- A minimum overall QPA of 3.00 and a minimum 3.30 combined average in biology, chemistry, math, biochemistry and/or molecular biology, and/or immunology.
- General GRE (V,Q,A) of 1800 (75th percentile or above).
- Subject GRE (Biochemistry, Cell Biology or Molecular Biology) with minimum 70th percentile. (Not mandatory, but recommended.)
- Two strong letters of recommendation from persons directly familiar with the academic performance of the applicant.
- Relevant research experience in biochemistry, immunology, and molecular biology.
- For foreign students, a TOEFL examination (650 or above) or a high score (60th percentile or above) in the verbal portion of the GRE.

STANDARD ADMISSION INTO THE PhD AND MS PROGRAMS

Applicants seeking standard admission to the PhD and MS programs should meet the following requirements:

- A minimum overall undergraduate QPA of 3.00 and a minimum 3.00 combined average in biology, chemistry, math, biochemistry and/or molecular biology and/or immunology.
- General GRE (V,Q,A) combined score of 1650 or above.
- Subject GRE (Biochemistry, Cell biology or Molecular biology) with minimum 50th percentile or above. (Not mandatory, but recommended.)
- Strong letters of recommendation from persons directly familiar with the academic performance of the applicant.
- Relevant research experience in biochemistry, immunology and molecular biology.
- For foreign students, a TOEFL examination (650 or above) or a high score (60th percentile or above) in the verbal portion of the GRE.

FINANCIAL ASSISTANCE

Financial support consisting of a personal living stipend and tuition waiver is awarded to all PhD students. All PhD students must maintain full-time status, meet the course and research requirements, and maintain a minimum QPA of 3.00 to remain in the program.

Applicants for the MS program will not normally be awarded financial support during the first year. They may receive financial support after the first year.

PROGRAM REQUIREMENTS

This section details the requirements for the MS, MPH, PhD, and DrPH degrees.

REQUIREMENTS FOR MASTER'S AND DOCTORAL DEGREES

See general requirements for master's and doctoral degrees on page 310 of the *GSPH* section for details not referenced below. In addition, successful completion of the written comprehensive examination in the fields of microbiology, immunology, molecular biology, biostatistics, epidemiology, and infectious diseases is required of all students seeking a master's degree.

REQUIREMENTS FOR PhD

From the *GSPH* Core Course list, PhD students in IDM must take BIOST 2011, along with the other core course requirements. Students are exempt from IDM 2011.

All PhD students in IDM must take the following nine courses:

IDM	2001	Molecular Biology of Microbial Pathogens
IDM	2002	Molecular Virology
IDM	2003	Host Response to Microbial Infection
IDM	2004	Viral Pathogenesis
IDM	2021	Special Studies in Microbiology
IDM	2023	Microbiology Laboratory
IDM	2025	Microbiology Seminar/Journal Club
IDM	3010	Research and Dissertation (<i>For doctoral students - after passing comprehensive examination</i>)
EPID	2160	Epidemiology of Infectious Disease

In addition, PhD students in IDM are required to take four elective courses from the list below:

IDM	2022	Special Topics, 3 credits, Fall & Spring
IDM	2030	Advanced Topics: (Retrovirology, Herpes, Gene Therapy), 2 credits, Fall or Spring
IDM	2032	Human Diversity and Public Health, 2 credits, Summer
IDM	2034	Control and Prevention of AIDS, 2 credits, Fall
IDM	2161	Methods in Infectious Disease Epidemiology, 2 credits, Spring
BIOST	2047	Introduction to Biological Assay, 2 credits, Spring
BIOST	2093	Data Management and Analysis, 1 credit, Fall
EPIDEM	2026	Epidemiological Basis for Disease Control (not offered every Fall, check with instructor)
EPIDEM	2180	Epidemiological Methods, 2 credits, Spring
EPIDEM	2600	Introduction to Molecular Epidemiology, 3 credits, Fall
MSBMG	2510	Biochemistry of Macromolecules, 2 credits, Spring or Fall
MSBMG	2520	Eukaryotic Molecular Genetics, 2 credits, Spring or Fall
MSIMM	2210	Comprehensive Immunology, 2 credits, Fall
MSMVM	2460	Molecular Microbiology, 2 credits, Spring
MSMVM	3410	Microbial Pathogenesis, 2 credits, Spring or Fall
MSMVM	3440	Vaccinology, 2 credits, Spring or Fall

DRPH PROGRAM REQUIREMENTS

Students studying for the DrPH degree must take a series of courses in the department, another series in the school, and four elective courses. The required courses are as follows:

Departmental Courses

IDM	2003	Host Response to Microbial Infection
IDM	2021	Special Studies in Microbiology
IDM	2025	Microbiology Seminar
IDM	2032	Human Diversity and Public Health, 2 credits, Summer

GSPH Courses

*BIOST	2041	Introduction to Statistical Methods 1
BIOST	2042	Introduction to Statistical Methods 2
*BIOST	2092	Introduction to Computing
BIOST	2093	Data Management and Analysis
*EOH	2012	Health, Disease, and Environment II
*EPID	2110	Principles of Epidemiology
EPID	2160	Epidemiology of Infectious Diseases
EPID	2180	Epidemiological Methods 1
*HSA	2000	Introduction to Health Services Administration
*HSA	2502	Social and Behavioral Aspects of Public Health Practice
*IDM	2011	Health, Disease, and Environment 1

Elective Courses (total of four of the following)

IDM	2030	Advanced Topics, (Retrovirology, Herpes, Gene Therapy), 2 credits, Fall or Spring
IDM	2032	Human Diversity and Public Health, 2 credits, Summer
IDM	2034	Control and Prevention of AIDS, 2 credits, Fall
IDM	2161	Methods in Infectious Disease Epidemiology
BIOST	2047	Introduction to Biological Assay, Fall or Spring
EPIDEM	2180	Epidemiological Methods, 2 credits, Spring
EPIDEM	2181	Design of Clinical Trials, 2 credits, Fall
EPIDEM	2200	Epidemiology and Health Services, 2 credits, Fall
EPIDEM	2260	Epidemiological Basis for Disease Control, 2 credits, Fall
EPIDEM	2600	Introduction to Molecular Epidemiology, 3 credits, Fall
MSIMM	2210	Comprehensive Immunology, 2 credits, Fall or Spring
MSBMG	2520	Eukaryotic Molecular Genetics, 2 credits, Fall or Spring
MSMVM	3410	Microbial Pathogenesis, 2 credits, Fall or Spring
MSMVM	3440	Vaccinology, 2 credits, Spring or Fall

MS PROGRAM REQUIREMENTS

Course requirements are the same as the PhD program, except that students are required to take two elective courses.

MPH PROGRAM REQUIREMENTS

Course requirements are the same as the DrPH program, except that students are required to take two elective courses.

MULTIDISCIPLINARY MASTER OF PUBLIC HEALTH PROGRAM

The **Graduate School of Public Health** offers the Multidisciplinary Master of Public Health Program. Formerly, **GSPH** master's programs have focused on preparing public health specialists: epidemiologists, biostatisticians, health administrators, geneticists, toxicologists, to name a few. This new program provides doctoral-level health professionals with advanced training to perform in the role of public health generalists and in public health leadership positions. The administration and implementation of the program will be overseen by the GSPH Multidisciplinary MPH Advisory Committee.

The program is open to the following candidates:

- Holders of doctoral degrees in the health sciences
- Advanced medical, dental, and veterinary students are considered on an individual basis
- Individuals with extensive experience in health-related fields, after review and approval of the Multidisciplinary MPH Advisory Committee
- Students with advanced standing and holders of doctoral degrees from professional schools are considered on an individual basis

The Multidisciplinary MPH Program provides an opportunity to meet the needs of a growing number of health science professionals desirous of practicing in a public health or community-based setting where data-based concepts, preventive medicine, health promotion, and public health practice will be of benefit. For several years, the **GSPH** has been enrolling a steadily growing proportion of physicians or other clinically trained health professionals, most of whom were pursuing departmentally based Master of Public Health degrees. The program builds on that pattern while providing professionally trained candidates the opportunity to broaden the scope of their course work. The program also represents an academic model complementary to the newly redesigned University of Pittsburgh **School of Medicine** curriculum. (Please see page 273 of this bulletin for information on the **School of Medicine's** graduate programs.)

Multidisciplinary MPH graduates will practice in such areas as public health agencies or clinical, academic, or instructional settings in community and teaching hospitals. The **GSPH** is the only accredited school of public health in the Commonwealth of Pennsylvania. **GSPH** is using the Multidisciplinary MPH as an academic umbrella to make its program offerings available in other areas of the Commonwealth.

CONTACT INFORMATION

Multidisciplinary MPH Program Office
130 Desoto Street, A661 Crabtree Hall
Pittsburgh, PA 15261
Phone: (412) 624-3088
Fax: (412) 624-3013
E-mail: joannie@gsphdean.gsph.pitt.edu
Web site: <http://www.pitt.edu/~gsphhome/multi.htm>

PROGRAM REQUIREMENTS

Students pursuing the multidisciplinary MPH must take a minimum of 30 credits to complete the required course work for the degree. These courses include the GSPH core courses, a series of program core courses, and electives as detailed below.

GSPH Core Courses (eight credits)

BIOST	2011	Principles of Statistical Reasoning	2 cr.
BIOST	2041	Intro to Statistical Methods I	2 cr.
EPIDEM	2110	Principles of Epidemiology	2 cr.
EOH	2012	Health Disease & Environment I	1 cr.
HSADM	2000	Intro to Health Services Administration	1.5 cr.
HSADM	2502	Social & Behavioral Aspects of Public Health	1.5 cr.

Multidisciplinary MPH Program Core (eight-ten credits)

EPIDEM	2260	Epidemiological Basis of Disease Control	2
PUBHLT	2002	MMPH Essay/Thesis	2
		Select at least one of the following:	
HSADM	2105	Medical Care Organizations	3
HSADM	2130	Health Law and Ethics	3
HSADM	2135	Health Policy Politics and Regulation	3
HSADM	2535	Health Behavior and Health Promotion	2
		Select at least one of the following:	
HUGEN	2017	Human Genetics	3
BIOST	2019	Public Health Statistics	2
IDM	2001	Molecular Biology of Microbial Pathogens	3
IDM	2004	Viral Pathogenesis	2
EOH	2505	Intro to Occupational and Environmental Health	3
EOH	2510	Intro to Occupational Medicine	3
EOH	2175	Organs System Toxicology	3

Elective Courses (12-14 credits)

Total Minimum Credits:

30

GSPH COURSE OFFERINGS

BIOST	2011	Principles of Statistical Reasoning		BIOST	3010	Research and Dissertation for the Doctoral Degree	
BIOST	2016	Introduction to Sampling		EOH	1200	Introduction to Risk Assessment	
BIOST	2019	Public Health Statistics		EOH	2012	Health, Disease, and Environment 2	
BIOST	2021	Special Studies in Biostatistics		EOH	2021	Special Studies	
BIOST	2025	Biostatistics Seminar		EOH	2022	Special Topics	
BIOST	2040	Elements of Stochastic Processes		EOH	2101	Intro to Research Methods 1	
BIOST	2041	Introduction to Statistical Methods 1		EOH	2102	Intro to Research Methods 2	
BIOST	2042	Introduction to Statistical Methods 2		EOH	2106	Environmental and Occupational Health Law	
BIOST	2043	Introduction to Statistical Theory 1		EOH	2107	Environmental and Occupational Health Colloquium	
BIOST	2044	Introduction to Statistical Theory 2		EOH	2111	Environmental and Occupational Prog Pract Proc	
BIOST	2045	Analysis of Case-Control Studies		EOH	2120	Intro to Chem & Physical Agents I	
BIOST	2046	Analysis of Cohort Studies		EOH	2121	Intro to Chem & Physical Agents II	
BIOST	2047	Introduction to Biological Assay		EOH	2122	Transp And Fate of Env Agents	
BIOST	2048	Occupational Biostatistics		EOH	2130	Survey of Radiation Health	
BIOST	2049	Applied Regression Analysis		EOH	2175	Principles of Toxicology	
BIOST	2051	Statistical Estimation Theory		EOH	2180	Introduction to Risk Sciences	
BIOST	2052	Multivariate Analysis		EOH	2181	Risk Assessment Practicum	
BIOST	2053	Nonparametric Methods in Statistics		EOH	2211	Radiation Physics	
BIOST	2054	Survival Analysis		EOH	2223	Radiobiology 1	
BIOST	2057	Planning Biomedical Studies		EOH	2232	Radiation Chem & Methodology 1	
BIOST	2060	Statistical Inference		EOH	2234	Health Physics	
BIOST	2063	Bayesian and Empirical Bayes Statistical Methods		EOH	2236	Non-Ionizing Radiation	
BIOST	2064	Bayes and Empirical Bayes Computational Methods		EOH	2237	Radiobiology 2	
BIOST	2081	Mathematical Methods for Statistics		EOH	2242	Radiation Chem & Methodology 2	
BIOST	2083	Linear Models		EOH	2247	Introduction Radiation Medicine	
BIOST	2084	Discrete Multivariate Analysis		EOH	2250	Reactor Hazard Evaluation	
BIOST	2085	Applied Time-Series Analysis		EOH	2254	Medical Physics	
BIOST	2087	Biostatistics Consulting Practicum		EOH	2255	Environmental Radiation	
BIOST	2088-			EOH	2259	Radiation Health Practice	
	2089	Special Topics Courses		EOH	2301	Analytical Meth Molec Dosimetry	
BIOST	2092	Introduction to Computing		EOH	2302	Molecular Approaches Toxicology	
BIOST	2093	Data Management and Analysis		EOH	2303	Applc Molec Biol Meth to Toxicology	
BIOST	2095	Introduction to Database Management Systems		EOH	2304	Biomarkers and Molecular Epid	
BIOST	2097	Applied Statistical Computing in the Health Sciences		EOH	2305	Mechanisms DNA Metab Dmg Repair	
				EOH	2306	Biochem Tech in Molec Toxicology	
				EOH	2309	Bioorganic Toxicology	
				EOH	2371	Cellular & Molecular Toxicology	
				EOH	2379	Immunotoxicology	
				EOH	2505	Intro to Environmental and Occupational Health	
				EOH	2509	Noise Assessment & Reduction	
				EOH	2510	Intro to Occupational Medicine	
				EOH	2563	Ergonomics & Occupptnl Biomechnc	
				EOH	2716	Regltn Hlth, Safty, & EnvrL Risks	
				EOH	2720	Applied Computatnl Toxicology 1	
				EOH	2725	Applied Computatnl Toxicology 2	
				EOH	2753	Industrl Envrnmntl Health Biol	
				EOH	2778	Respiratory Physiology	
				EOH	3010	Research and Dissertation PhD	
				EPIDEM	2110	Principles of Epidemiology	
				EPIDEM	2150	Epidemiology of Cardiovascular Diseases	
				EPIDEM	2151	Physical Activity Epidemiology	
				EPIDEM	2160	Epidemiology of Infectious Diseases	
				EPIDEM	2161	Methods in Infectious Diseases Epidemiology	
				EPIDEM	2170	Epidemiology of Selected Chronic Diseases	
				EPIDEM	2171	Cancer Epidemiology	
				EPIDEM	2173	Culture and Diversity in Epidemiological Research	
				EPIDEM	2180	Epidemiological Methods 1	
				EPIDEM	2181	Design of Clinical Trials	

EPIDEM	2182	Design of Clinical Trials 2: Contemporary Issues	HSADM	2219	Reengineering Operations in Health Care
EPIDEM	2200	Epidemiology and Health Services	HSADM	2220	Cost Effectiveness Analysis in Health Care
EPIDEM	2210	Special Studies - Essay	HSADM	2222	Knowledge Representation of Clinical Design Support
EPIDEM	2213	Special Studies - Directed	HSADM	2223	Evaluation Methods in Medical Informatics
EPIDEM	2220	Environmental Epidemiology	HSADM	2224	Introduction to Clinical Multimedia & Internet
EPIDEM	2230	Epidemiological Methods 2	HSADM	2225	Knowledge Representation
EPIDEM	2250	Seminar in Epidemiology	HSADM	2300	Health Law Field Experience
EPIDEM	2260	Epidemiological Basis for Disease Control	HSADM	2502	Social and Behavioral Aspects of Public Health Practice
EPIDEM	2290	Biochemical Aspects of Nutrition and Disease	HSADM	2503	Practicum: Public and Community Health Services
EPIDEM	2310	Psychiatric Epidemiology 1	HSADM	2505	Social and Cultural Factors in Health and Illness
EPIDEM	2320	Psychiatric Epidemiology 2	HSADM	2507	Epidemiology and Health Services
EPIDEM	2340	Epidemiologic Approaches to the Etiology and Treatment of Children's Psychiatric Disorders	HSADM	2508	Information Management in Public and Nonprofit Organizations
EPIDEM	2350	Epidemiology of Alcohol Use and Abuse	HSADM	2511	Independent Study: Behavioral and Community Health Sciences
EPIDEM	2400	Behavioral Factors in Disease	HSADM	2512	Health Program and Project Management
EPIDEM	2525	Nutrition Assessment Laboratory	HSADM	2513	Financial Management in Health Care Organizations
EPIDEM	2540	Nutrition and Epidemiology of Disease	HSADM	2520	Theories of Health Behavior and Health Education
EPIDEM	2550	Methodological Issues in Behavioral Lifestyle Interventions	HSADM	2521	Essay: Behavioral and Community Health Sciences
EPIDEM	2600	Introduction to Molecular Epidemiology	HSADM	2530	Injury Prevention and Control
EPIDEM	2670	Injury Epidemiology	HSADM	2532	Dimensions of Aging: Culture and Health
EPIDEM	2710	Epidemiology of Women's Health	HSADM	2533	Issues in Long-Care Treatment
EPIDEM	2711	Physiology in Women	HSADM	2534	Clinical Aspects of Dementia Care
EPIDEM	2720	Environmental Causes of Reproductive Failure	HSADM	2535	Analysis of Health Promotion
EPIDEM	2850	Introduction to Pharmacoepidemiology	HSADM	2540	Seminar in Administration of Mental Health/Mental Retardation Programs
EPIDEM	2900	Epidemiology of Aging	HSADM	2541	Research Methods on Aging
EPIDEM	2980	Biology and Physiology of Aging	HSADM	2544	Environmental and Occupational Health Law
EPIDEM	3100	Research and Dissertation for the Doctoral Degree	HSADM	2545	Introduction to Community Mental Health
FTDR	0000	Full-Time Dissertation Study	HSADM	2548	Community Mental Health Consultative Techniques
HSADM	2000	Introduction to Health Services Administration	HSADM	2552	Political and Legal Factors in Public Health
HSADM	2002	Law and the Public's Health	HSADM	2555	International Health Policy and Management
HSADM	2028	Microeconomics Applied to Health	HSADM	2557	International Health Practicum
HSADM	2034	The Art of Implementation	HSADM	2558	Health Program Evaluation Methods
HSADM	2037	Essay: Health Administration	HSADM	2560	Introduction to Population Problems
HSADM	2049	Human Resource Management/Labor Relations in the Health Care Sector	HSADM	2561	Demographic Techniques
HSADM	2105	Health and Medical Care Organization	HSADM	2562	Seminar in Family Planning
HSADM	2110	Managing Professional Organizations	HSADM	2563	Community Health Assessment
HSADM	2115	Management Residency	HSADM	2565	Maternal and Child Health Applied Research
HSADM	2120	Health Accounting and Finance	HSADM	2566	Population, Health, and Development
HSADM	2125	Health Economics	HSADM	2568	Human Diversity and Public Health Policy, Research, and Practice
HSADM	2130	Health Law and Ethics	HSADM	2570	Introduction to Health Services for Mothers and Children
HSADM	2135	Health Policy	HSADM	2575	Seminar in Maternal and Child Health
HSADM	2140	Capital Formation	HSADM	2585	Historical and Sociological Perspectives in Public Health
HSADM	2150	Strategic Management of Health Services Organizations	HSADM	2592	Integrative Seminar in Public Health Social Work
HSADM	2202	Third-Party Reimbursement	HSADM	2599	Public Health Approaches to Women's Health
HSADM	2203	Financing and Regulation of Long-Term Care Services	HSADM	3002	Health Survey Methods
HSADM	2204	Practical Medical Group Practice Management	HSADM	3003	Seminar in Advanced Evaluation Techniques
HSADM	2205	Independent Study: Health Administration	HSADM	3004	Integrative Seminar in Health Services Research
HSADM	2207	Quality Assessment	HSADM	3007	Ethnographic Approaches to Program Evaluation
HSADM	2208	Managed Care: A Practical Review of How It Works			
HSADM	2209	Selected Hospital Legal Issues			
HSADM	2214	Fundamentals of Health Care Governance			
HSADM	2216	Health Insurance - Two Perspectives: Insurer vs. Provider			
HSADM	2218	Integrated Delivery Systems and Networks			

HSADM 3010 Research and Dissertation for the
Doctoral Degree

HSADM 3011 Seminar in Health Law

HSADM 3012 Research Ethics

HSADM 3015 Geographic Information Systems

HUGEN 2017 Human Genetics

HUGEN 2021 Special Studies

HUGEN 2022 Human Population Genetics

HUGEN 2025 Human Genetics Seminar

HUGEN 2026 Special Studies: Human Genetics

HUGEN 2031 Chromosomes and Human Diseases

HUGEN 2032 Genetic Techniques

HUGEN 2033 Quantitative Genetics

HUGEN 2034 Introduction to Human Biochemical
and Molecular Genetics

HUGEN 2035 Principles of Genetic Counseling

HUGEN 2036 Genetic Counseling Internship

HUGEN 2038 Intervention Skills for Genetic Counselor

HUGEN 2039 Risk Calculation in Genetic Counseling

HUGEN 2040 Molecular Basis of Human Inherited Disease

HUGEN 2041 Advanced Medical Ethics

HUGEN 2043 Topics in Bioethics

HUGEN 2047 Clinical Genetics Case Conference

HUGEN 2048 Linkage Analysis in Human Genetics

HUGEN 3010 Research and Dissertation for
Doctoral Degree

IDM 2001 Molecular Biology of Microbial Pathogens

IDM 2002 Molecular Virology

IDM 2003 Host Response to Microbial Infection

IDM 2004 Viral Pathogenesis

IDM 2011 Health, Disease, and Environment I

IDM 2015 Vaccinology

IDM 2021 Special Studies in Microbiology

IDM 2022 Special Topics

IDM 2023 Microbiology Laboratory

IDM 2025 Microbiology Seminar/Journal Club

IDM 2030 Advanced Topics in Virology

IDM 2032 Human Diversity and Public Health

IDM 2034 Control and Prevention of AIDS

IDM 3010 Research and Dissertation for
the Doctoral Degree

IDM 2161 Methods in Infectious Disease
Epidemiology

PUBHLT 2000 Special Topics

PUBHLT 2001 Integrative Course

PUBHLT 2002 Essay-Mmph

PUBHLT 2003 The Politics of Public Health
in Pennsylvania

PUBHLT 2004 Building Interdisciplinary Partnerships

PUBHLT 2007 Community Organizing

GRADUATE SCHOOL OF PUBLIC HEALTH FACULTY

DEPARTMENT OF BIOSTATISTICS

STEWART J. ANDERSON, *Associate Professor of Biostatistics*,
PhD, University of Colorado

VINCENT C. ARENA, *Assistant Professor of Biostatistics*, PhD,
University of Pittsburgh

JOHN L. BRYANT, *Research Associate Professor of Statistics*, PhD,
Rensselaer Polytechnic Institute

CHUNG-CHOU HO CHANG, *Research Assistant Professor of
Medicine*, PhD, University of Pittsburgh

JAMES J. COLLINS, *Adjunct Research Professor of Biostatistics*,
PhD, University of Illinois

JOSEPH P. COSTANTINO, *Associate Professor of Biostatistics*,
DrPH, University of Pittsburgh

RICHARD D. DAY, *Assistant Professor of Biostatistics*, PhD,
University of California

ROGER S. DAY, *Associate Professor of Biostatistics; Associate
Member, Pittsburgh Cancer Institute*, ScD, Harvard University

JAMES J. DIGNAM, *Research Assistant Professor of Biostatistics*,
PhD, University of Pittsburgh

PHILIP E. ENTERLINE, *Emeritus Professor of Biostatistics*, PhD,
American University

CHING CHUN LI, *Emeritus University Professor of Biometry and
Human Genetics*, PhD, Cornell University

JONG-HYEON JEONG, *Assistant Professor of Biostatistics*, South
Korea; PhD, University of Rochester

STEPHANIE R. LAND, *Research Assistant Professor of
Biostatistics*, PhD, Stanford University

GARY M. MARSH, *Professor of Biostatistics*, PhD, University of
Pittsburgh

SATI MAZUMDAR, *Professor of Biostatistics*, PhD, Cornell
University

CAROL K. REDMOND, *Distinguished Service Professor of Public
Health and Vice Dean for Academic Affairs*, ScD(Hyg), University
of Pittsburgh

HOWARD E. ROCKETTE, *Professor of Biostatistics and Chair of
the Department*, PhD, Pennsylvania State University

THOMAS E. RUDY, *Professor of Anesthesiology and Psychiatry/
School of Medicine*, PhD, University of Notre Dame

SUSAN M. SEREIKA, *Assistant Professor/School of Nursing*, PhD,
University of Michigan

ROSLYN A. STONE, *Assistant Professor of Biostatistics*, PhD,
University of Washington

LISA A. WEISSFELD, *Professor of Biostatistics*, PhD, University
of Pittsburgh

HARRY SAMUEL WIEAND, *Professor of Biostatistics*, PhD,
University of Maryland

JOHN W. WILSON, *Assistant Professor of Biostatistics*, PhD,
Cornell University

ADA O. YOUK, *Research Associate*, PhD, University of Pittsburgh

DEPARTMENT OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH

YVES C. E. ALARIE, *Professor of Environmental and Occupational Health*, PhD, University of Montreal

JULIAN B. ANDELMAN, *Professor Emeritus of Environmental Health*, PhD, Polytechnic University of New York

WILLIAM L. BIGBEE, *Associate Professor of Environmental and Occupational Health*, PhD, University of Oregon

MILTON BLACK, *Adjunct Assistant Professor of Environmental and Occupational Health*, MPH, MD, University of Pittsburgh

JOHN D. BOICE JR., *Adjunct Professor of Environmental and Occupational Health*, ScD, Harvard University

RICHARD P. BONFIGLIO, *Adjunct Assistant Professor of Environmental and Occupational Health*, MD, University of Michigan

MICHELLE S. BROIDO, *Associate Professor of Environmental and Occupational Health and Assistant Vice Chancellor for Research in the Health Sciences*, PhD, University of California, San Diego

H. GREGG CLAYCAMP, *Associate Professor of Environmental and Occupational Health*, PhD, Northwestern University

ALBERT R. CUNNINGHAM, *Assistant Professor of Environmental and Occupational Health*, PhD, University of Pittsburgh

BILLY W. DAY, *Associate Professor of Environmental and Occupational Health*, PhD, University of Oklahoma

DANIEL R. DIETRICH, *Adjunct Professor of Environmental and Occupational Health*, PhD, Institute of Toxicology, Zurich, Switzerland

BERTRAM DINMAN, *Clinical Professor of Environmental and Occupational Health*, MD, Temple University College of Medicine, ScD, University of Cincinnati

JAMES P. FABISIAK, *Assistant Professor of Environmental and Occupational Health*, PhD, Pennsylvania State University

MARK L. FARLEY, *Adjunct Assistant Professor of Environmental and Occupational Health*, MPH, JD, University of Pittsburgh

J. DEXTER FORBES, *Adjunct Assistant Professor of Environmental and Occupational Health*, MD, Temple University

THOMAS A. FRANZ, *Clinical Instructor of Orthopaedic Surgery, Clinical Instructor of Environmental and Occupational Health*, MD, Indiana University

WARFIELD GARSON, *Adjunct Clinical Professor of Environmental and Occupational Health*, MD, University of Southern California

WILLIAM F. GAUSS, *Clinical Associate Professor of Environmental and Occupational Health*, EdD, Lawrence University, MD, Universidad Autonoma de Ciudad Juarez School of Medicine

GEORGE GEBUS, *Adjunct Assistant Professor of Environmental and Occupational Health*, MD, Medical College of New York

SAMUEL E. GLOVER, *Assistant Professor of Environmental and Occupational Health*, PhD, Washington State University

STEPHEN G. GRANT, *Assistant Professor of Environmental and Occupational Health*, PhD, University of Toronto

JAY D. HARPER, *Assistant Professor of Environmental and Occupational Health*, MD, West Virginia University

JOHN M. HERRON, *Research Assistant Professor of Environmental and Occupational Health*, PhD, University of Pittsburgh

VALERIAN KAGAN, *Associate Professor of Environmental and Occupational Health*, PhD, Moscow State University, DSc, Russian Academy of Sciences, Moscow

MERYL H. KAROL, *Professor of Environmental and Occupational Health*, PhD, Columbia University

GEORG KELETI, *Adjunct Associate Professor of Environmental and Occupational Health*, PhD, Comenius University

LAWRENCE W. KELLER, *Assistant Professor of Environmental and Occupational Health*, MS, University of Pittsburgh

PHOUTHONE KEOHAVONG, *Assistant Professor of Environmental and Occupational Health*, PhD, Universite Louis Pasteur, Strasbourg, France

GILLES KLOPMAN, *Adjunct Professor of Environmental and Occupational Health*, PhD, University of Brussels, Belgium

PATRICK P. KOTY, *Assistant Professor of Environmental and Occupational Health*, PhD, University of Pittsburgh

JOHN M. KUCHTA, *Adjunct Assistant Professor Environmental and Occupational Health*, PhD, West Virginia University

MICHAEL P. KUNIAK, *Adjunct Clinical Assistant Professor of Environmental and Occupational Health*, DO, Philadelphia College of Osteopathic Medicine

MARK L. LEVITT, *Adjunct Professor of Environmental and Occupational Health*, MD, PhD, Temple University

MICHAEL I. LUSTER, *Adjunct Professor of Environmental and Occupational Health*, PhD, Loyola University of Chicago

OREST T. MACINA, *Assistant Professor of Environmental and Occupational Health*, PhD, Case Western Reserve University

DONALD R. MATTISON, *Adjunct Professor of Environmental and Occupational Health*, MD, College of Physicians and Surgeons, Columbia University, New York

ANNA MATTHEWS, *Adjunct Assistant Professor of Environmental and Occupational Health*, MD, University of Singapore School of Medicine

DONALD J. MCGRAW, *Adjunct Clinical Associate Professor of Environmental and Occupational Health*, MD, State University of New York, Stony Brook

JOHN MENDELOFF, *Professor of Environmental and Occupational Health/Graduate School of Public and International Affairs*, PhD, University of California, Berkeley

ALBERT E. MUNSON, *Adjunct Professor of Environmental and Occupational Health*, PhD, Medical College of Virginia

THOMAS NEILSON, *Adjunct Assistant Professor of Environmental and Occupational Health*, MD, Temple University Medical School

FRANK X. PAWLOSKY, *Adjunct Clinical Assistant Professor of Environmental and Occupational Health*, MD, University of Pittsburgh

J. DAVID PIPOSZAR, *Adjunct Senior Lecturer in Environmental and Occupational Health*, MPH, University of Pittsburgh

BRUCE PITT, *Professor and Chairman, Department of Environmental and Occupational Health*, PhD, Johns Hopkins University

PETER J. QUINN, *Adjunct Professor of Environmental and Occupational Health*, PhD, University of Sydney, DSc, University of London

MARJORIE ROMKES, *Assistant Professor of Environmental and Occupational Health*; PhD, Texas A & M University

JERRY C. ROSEN, *Associate Professor of Environmental and Occupational Health, University Radiation Safety Officer*; MS, University of Rochester

HERBERT S. ROSENKRANZ, *Interim Dean and Professor of Environmental and Occupational Health*, PhD, Cornell University

DONALD SASHIN, *Associate Professor of Environmental and Occupational Health*, PhD, Carnegie Mellon University

JOHN N. SCARSELLATO, *Adjunct Clinical Assistant Professor of Environmental and Occupational Health*, MD, Bologna University, Bologna, Italy

WILLIAM R. SCHELL, *Professor Emeritus of Environmental and Occupational Health*, PhD, University of Washington

JOSEPH J. SCHWERHA, *Professor of Environmental and Occupational Health*, MD, West Virginia University

CHRIS SHAW, *Associate Professor of Environmental and Occupational Health*, PhD, University of Wisconsin

MITCHELL J. SMALL, *Adjunct Professor of Environmental and Occupational Health*, PhD, University of Michigan

DOUGLAS A. SMITH, *Adjunct Associate Professor of Environmental and Occupational Health*, PhD, Carnegie Mellon University

NANCY B. SUSSMAN, *Assistant Professor of Environmental and Occupational Health*, PhD, University of Pittsburgh

JAN L. SYKORA, *Associate Professor Emeritus of Environmental and Occupational Health*, ScD(Biol), Charles University, Prague

DAVID J. TOLLERUD, *Adjunct Professor of Environmental and Occupational Health*, MD, Mayo Medical School

NIEL WALD, *Professor of Environmental and Occupational Health*, MD, New York University

DEPARTMENT OF EPIDEMIOLOGY

DEBORAH J. AARON, *Assistant Professor, Department of Epidemiology*, PhD, University of Pittsburgh

LUCILE L. ADAMS-CAMPBELL, *Adjunct Professor, Department of Epidemiology*, PhD, University of Pittsburgh

CARLENE STOBER BAUM, *Assistant Professor, Department of Epidemiology*, PhD, State University of New York

STEVEN H. BELLE, *Associate Professor, Department of Epidemiology*, PhD, University of Michigan

PAULA BONINO, *Clinical Associate Professor, Department of Epidemiology*, MD, Case Western Reserve University

JANET T. BONK, *Senior Research Associate, Department of Epidemiology*, MPH, University of Pittsburgh

JOYCE BROMBERGER, *Research Assistant Professor, Department of Epidemiology*, PhD, University of Pittsburgh

CLAREANN H. BUNKER, *Assistant Professor, Department of Epidemiology*, PhD, University of Pittsburgh

ARLENE W. CAGGIULA, *Associate Professor, Department of Epidemiology*, PhD, University of Pittsburgh

JANE A. CAULEY, *Associate Professor, Department of Epidemiology*, DrPH, University of Pittsburgh

MARIE D. CORNELIUS, *Assistant Professor, Department of Epidemiology*, PhD, University of Pittsburgh

NANCY L. DAY, *Professor, Department of Epidemiology*, PhD, University of California, Berkeley

KATHERINE M. DETRE, *Professor, Department of Epidemiology*, MD, Queen's University, DrPH, Yale University

MARY AMANDA DEW, *Associate Professor, Department of Epidemiology*, PhD, Harvard University

HIROKO H. DODGE, *Research Associate, Department of Epidemiology*, PhD, Pennsylvania State University

JOHN E. DONOVAN, *Associate Professor, Department of Epidemiology*, PhD, University of Colorado

JANICE S. DORMAN, *Associate Professor, Department of Epidemiology*, PhD, University of Pittsburgh

JACQUELINE M. DUNBAR-JACOB, *Professor, Department of Epidemiology*, PhD, Stanford University

RHOBERT W. EVANS, *Assistant Professor, Department of Epidemiology*, PhD, Institute of Animal Physiology, Babraham, Cambridge, England

MARY GANGULI, *Associate Professor, Department of Epidemiology*, MBBS, Christian Medical College, University of Madras

REGINA M. HARDISON, *Research Associate, Department of Epidemiology*, MS, University of Pittsburgh

LEE H. HARRISON, *Associate Professor, Department of Epidemiology*, MD, Emory University School of Medicine

RICHARD HOLOBKOV, *Assistant Professor, Department of Epidemiology*, PhD, University of Washington

DIANE G. IVES, *Senior Research Associate, Department of Epidemiology*, MPH, University of Pittsburgh

SHERYL F. KELSEY, *Professor, Department of Epidemiology*, PhD, Carnegie Mellon University

ELIZABETH D. KENNARD, *Research Associate, Department of Epidemiology*, PhD, Northwestern University

LAWRENCE A. KINGSLEY, *Associate Professor, Department of Epidemiology*, DrPH, University of Pittsburgh

ANDREA M. KRISKA, *Associate Professor, Department of Epidemiology*, PhD, University of Pittsburgh

MARIJANE KROHN, *Associate Professor, Department of Epidemiology*, PhD, University of Washington, Seattle

LEWIS H. KULLER, *Chair and University Professor, Department of Epidemiology*, MD, George Washington University, DrPH, Johns Hopkins University

RONALD E. LAPORTE, *Professor, Department of Epidemiology*, PhD, University of Pittsburgh

SHARON M. LAWLOR, *Research Associate, Department of Epidemiology*, MBA, Duquesne University

KAI-LI LIAW, *Assistant Professor, Department of Epidemiology*, PhD, Johns Hopkins University.

ROLF LOEBER, *Professor, Department of Epidemiology*, PhD, Queen's University, Kingston, Ontario, Canada

MANUEL S. LOMBARDARO, *Research Associate, Department of Epidemiology*, MS, Carnegie Mellon University

SUSAN M. MANZI, *Assistant Professor, Department of Epidemiology*, MD, University of Pittsburgh

NINA MARKOVIC, *Assistant Professor, Department of Epidemiology*, PhD, University of Pittsburgh

JEFFREY P. MARTIN, *Research Associate, Department of Epidemiology*, MBA, University of Pittsburgh

KAREN A. MATTHEWS, *Professor, Department of Epidemiology*, PhD, University of Texas, Austin

ROBERT H. MCDONALD, JR., *Professor, Department of Epidemiology*, MD, Stritch School of Medicine of Loyola University

MARGARET KREMER MCLAUGHLIN, *Associate Professor, Department of Epidemiology*, PhD, University of Maryland

ELAINE N. MEILAHN, *Assistant Professor, Department of Epidemiology*, DrPH, University of Pittsburgh

N. CAROLE MILAS, *Senior Research Associate, Department of Epidemiology*, MS, University of Pittsburgh

VALLE NAZAR-STEWART, *Assistant Professor, Department of Epidemiology*, PhD, University of Washington, Seattle

ROBERTA J. NESS, *Associate Professor, Department of Epidemiology*, MD, Cornell University

ANNE B. NEWMAN, *Associate Professor, Department of Epidemiology*, MD, University of Pittsburgh

TREVOR J. ORCHARD, *Professor, Department of Epidemiology*, MBBCh, University of Wales/Welsh National School of Medicine, MMedSci, University of Nottingham

GALE A. RICHARDSON, *Associate Professor, Department of Epidemiology*, PhD, West Virginia University

MICHELLE I. ROSSI, *Assistant Professor, Department of Epidemiology*, MD, Mt. Sinai School of Medicine

KATHLEEN D. RYAN, *Associate Professor, Department of Epidemiology*, PhD, Northwestern University Medical School

RUSSELL RULE RYCHECK, *Associate Professor, Department of Epidemiology*, MD, DrPH, University of Pittsburgh

LORAN M. SALAMONE, *Assistant Professor, Department of Epidemiology*, PhD, Tufts University

ROBERT E. SCHOEN, *Associate Professor, Department of Epidemiology*, MD, Columbia University

RICHARD SCHULZ, *Professor, Department of Epidemiology*, PhD, Duke University

LAUREY R. SIMKIN-SILVERMAN, *Assistant Professor, Department of Epidemiology*, PhD, University of Mississippi

THOMAS J. SONGER, *Assistant Professor, Department of Epidemiology*, PhD, University of Pittsburgh

ANN RODEWALD STEENKISTE, *Senior Research Associate, Department of Epidemiology*, MS, Stanford University

EVELYN O. TALBOTT, *Associate Professor, Department of Epidemiology*, DrPH, University of Pittsburgh

TRINA L. THOMPSON, *Research Associate, Department of Epidemiology*, MPH, University of Pittsburgh

EUGENE S. TULL, *Assistant Professor, Department of Epidemiology*, DrPH, University of Alabama, Birmingham

KIM C. SUTTON TYRRELL, *Associate Professor, Department of Epidemiology, DrPH, University of Pittsburgh*

RONALD J. VERGONA, *Senior Research Associate, Department of Epidemiology, MA, MS, University of Pittsburgh*

VICTOR G. VOGEL III, *Professor, Department of Epidemiology, MD, Temple University Medical School*

MOLLY T. VOGT, *Associate Professor, Department of Epidemiology, PhD, DrPH, University of Pittsburgh*

CYRIL H. WECHT, *Adjunct Professor, Department of Epidemiology, MD, JD, University of Pittsburgh*

YULING L. WEI, *Senior Research Associate, Department of Epidemiology, MS, Harvard University*

HAROLD WEISS, *Assistant Professor, Department of Epidemiology, PhD, University of Pittsburgh*

JOEL L. WEISSFELD, *Associate Professor, Department of Epidemiology, MD, Johns Hopkins University*

STEPHEN R. WISNIEWSKI, *Assistant Professor, Department of Epidemiology, PhD, University of Pittsburgh*

MONICA E. YAMAMOTO, *Assistant Professor, Department of Epidemiology, DrPH, University of North Carolina, Chapel Hill*

WAN-LIN YEH, *Research Associate, Department of Epidemiology, MA, University of Pittsburgh*

DEPARTMENT OF HEALTH SERVICES ADMINISTRATION

ELSIE R. BROUSSARD, *Professor, MD, Louisiana State University*

HOWARD B. DEGENHOLTZ, *Assistant Professor, PhD, University of Minnesota*

NATHAN HERSHEY, *Professor, joint appointment Katz Graduate School of Business, LLB, Harvard University*

KENNETH J. JAROS, *Assistant Professor, PhD, University of Pittsburgh*

JAN C. JERNIGAN, *Assistant Professor, Faculty, Pittsburgh Adolescent Alcohol Research Center; Faculty, University of Pittsburgh Cancer Institute, PhD, University of Pittsburgh*

CHRISTOPHER R. KEANE, *Research Associate, ScD, University of Pittsburgh*

JUDITH R. LAVE, *Vice Chairperson, Professor of Health Economics, Interim Director, Health Administration Program, PhD, Harvard University*

CHYONGCHIOU J. LIN, *Assistant Professor, PhD, Vanderbilt University*

BEAUFORT B. LONGEST, *Professor and Director/Health Policy Institute, PhD, Georgia State University*

GORDON K. MacLEOD, *Professor, MD, University of Cincinnati*

CAROL L. McALLISTER, *Assistant Professor, PhD, University of Pittsburgh*

FRANKLIN L. McCARTHY, *Associate Professor, PhD, University of Minnesota*

ANNE R. MEDSGER, *Senior Research Associate, MS(Hyg), University of Pittsburgh*

PAMELA B. PEELE, *Assistant Professor, PhD, Virginia Polytechnic Institute and State University*

KAREN S. PETERSON, *Associate Chairperson, Assistant Professor, Coordinator, DrPH and MPH programs, Associate Chair for Education; MPH, University of Pittsburgh*

CHRISTINE L. PISTELLA, *Associate Professor, PhD, University of Pittsburgh*

EDMUND M. RICCI, *Chairperson, Professor of Sociology in Public Health, PhD, University of Pittsburgh*

RAVI K. SHARMA, *Assistant Professor, PhD, University of Pennsylvania*

MYRNA A. SILVERMAN, *Associate Professor and Director of DrPH Program, PhD, University of Pittsburgh*

CAROL M. STOCKMAN, *Visiting Research Assistant Professor, PhD, University of Pittsburgh*

MARTHA A. TERRY, *Senior Research Associate, PhD, University of Pittsburgh*

JEANETTE M. TRAUTH, *Assistant Professor and Co-Director, Health Promotion and Education Program, PhD, University of Pittsburgh*

DEPARTMENT OF HUMAN GENETICS

CHRISTOPHER E. ASTON, *Assistant Professor of Human Genetics, PhD, Australian National University*

MICHAEL BARMADA, *Assistant Professor of Human Genetics, PhD, University of Pittsburgh*

JOHN A. BARRANGER, *Professor of Human Genetics, MD, University of Southern California*

J. RICHARD CHAILLET, *Assistant Professor of Biological Sciences, MD, Yale University*

ROBERT E. FERRELL, *Professor of Human Genetics, PhD, University of Texas*

ELEANOR FEINGOLD, *Assistant Professor of Human Genetics, PhD, Stanford University*

DAVID N. FINEGOLD, *Professor of Pediatrics and Medicine/School of Medicine, MD, University of Pittsburgh*

ELIZABETH A. GETTIG, *Assistant Professor of Human Genetics and Director, Genetic Counseling Program*, MS, Sarah Lawrence College

SUSANNE M. GOLLIN, *Associate Professor of Human Genetics*, PhD, Northwestern University

MICHAEL B. GORIN, *Assistant Professor of Ophthalmology and Human Genetics Interim Chair, Human Genetics*, MD/PhD, University of Pennsylvania

ROBIN GRUBS, *Instructor of Human Genetics*, MS, University of Pittsburgh

W. ALLEN HOGGE, *Associate Professor of Obstetrics, Gynecology and Reproductive Sciences/School of Medicine*, MD, University of Virginia

CHRISTANN L. JACKSON, *Clinical Professor of Human Genetics*, MD, University of Pittsburgh

M. ILYAS KAMBOH, *Associate Professor of Human Genetics*, PhD, Australian National University

MICHAEL J. KERR, *Adjunct Clinical Instructor of Human Genetics*, MS, University of Pittsburgh

MARY L. MARAZITA, *Associate Professor of Oral and Maxillofacial Surgery and Director of the Cleft Palate-Craniofacial Center/School of Dental Medicine*, PhD, University of North Carolina

ELIZABETH WRIGHT MCPHERSON, *Associate Professor of Human Genetics*, MD, University of Washington

EDWIN W. NAYLOR, *Associate Professor of Human Genetics*, PhD, Utah State University

ERIN O'ROURKE, *Instructor of Human Genetics*, MS, University of Pittsburgh

LISA S. PARKER, *Assistant Professor of Human Genetics*, PhD, University of Pittsburgh

DAVID G. PETERS, *Assistant Professor of Human Genetics*, PhD, University of Liverpool

WENDY S. RUBINSTEIN, *Assistant Professor/School of Medicine*, MD, Mt. Sinai School of Medicine

SOFIA SHEKHTER-LEVIN, *Assistant Professor of Human Genetics*, MD, First Leningrad Medical School

URVASHI SURTI, *Associate Professor of Pathology and Director of Cytogenetics Laboratory, Magee-Women's Hospital/School of Medicine*, PhD, University of Pittsburgh

MASSIMO TRUCCO, *Hillman Professor of Pediatric Immunology/School of Medicine*, MD, University of Torino

DANIEL E. WEEKS, *Assistant Professor of Human Genetics*, PhD, University of California at Los Angeles

DAVID WHITCOMB, *Associate Professor/School of Medicine and Graduate School of Public Health*, MD, Ohio State University

DEPARTMENT OF INFECTIOUS DISEASES AND MICROBIOLOGY

JOHN A. ARMSTRONG, *Emeritus Professor, Department of Infectious Diseases, Member of the Biomedical Institutional Review Board, University of Pittsburgh*, ScD, University of Pittsburgh

R. WAYNE ATCHISON, *Emeritus Associate Professor, Department of Infectious Diseases and Microbiology, and Children's Hospital of Pittsburgh*, PhD, University of Kansas

VELPANDI AYYAVOO, *Assistant Professor*, PhD, Madurai Kamaraj University

SYLVIA BARKSDALE, *Assistant Professor, Director of Community Development Research and Part-time Faculty/School of Social Work*, PhD, University of Pittsburgh

SIMON M. BARRATT-BOYES, *Assistant Professor*, PhD, University of California, Davis

RODGER L. BEATTY, *Assistant Professor*, PhD, University of Pittsburgh

ALBERT DONNENBERG, *Associate Professor of Medicine and IDM, Director, Blood and Bone Marrow Processing Laboratory, University of Pittsburgh Medical Center, Director, Flow Cytometry Facility, University of Pittsburgh Cancer Institute*, PhD, Johns Hopkins University

JOHN ENCANDELA, *Assistant Professor*, PhD, University of Pittsburgh

PHALGUNI GUPTA, *Professor and Assistant Chair*, PhD, University of Wisconsin

ZHENG FAN, *Research Assistant Professor*, MD, Shanghai First Medical College

LINDA FRANK, *Assistant Professor, Principal Investigator and Director of Pennsylvania AIDS Education and Training Center*, PhD, University of Pittsburgh

MONTO HO, *Emeritus Professor of Medicine and Emeritus Chairman, Department of Infectious Diseases and Microbiology, Member of Medical College of Taiwan*, MD, Harvard University

XIAO-LI HUANG, *Research Assistant Professor*, MD, Shanghai First Medical College

FRANK J. JENKINS, *Associate Professor, Department of Pathology and IDM, Center for Neuroscience, Pittsburgh Cancer Institute*, PhD, Pennsylvania State University

LAWRENCE A. KINGSLEY, *Associate Professor*, DrPH, University of Pittsburgh

AURELIA M. C. KOROS, *Research Assistant Professor*, PhD, University of Pittsburgh

DEBORAH K. MC MAHON, *Associate Professor, Department of Medicine and IDM, Medical Director of Pitt Treatment Evaluation Unit, University of Pittsburgh Medical Center, MD, Temple University*

JOHN W. MELLORS, *Professor of Medicine and IDM, Department of Medicine, Chief, Infectious Diseases Division, Director of Pitt Treatment Evaluation Unit, University of Pittsburgh Medical Center, MD, Dartmouth College*

RONALD C. MONTELARO, *Professor, Molecular Genetics and Biochemistry, School of Medicine and IDM, PhD, University Wisconsin-Madison*

A. WILLIAM PASCULLE, *Associate Professor, Department of Pathology, University of Pittsburgh Medical Center, Director of Clinical Microbiology, ScDHg, University of Pittsburgh*

LIRONG QU, *Research Assistant Professor, PhD, University of Pittsburgh*

TODD A. REINHART, *Assistant Professor, ScD, Harvard University*

SHARON RIDDLER, *Assistant Professor, Department of Medicine and IDM, Medical Director of the Pitt Men's Study, co-investigator of the Pitt Treatment Evaluation Unit, University of Pittsburgh Medical Center, MD, Medical College of Wisconsin*

CHARLES R. RINALDO JR., *Professor and Chair, Professor of Pathology, Assistant Director of Clinical Microbiology, University of Pittsburgh Medical Center, PhD, University of Utah*

DAVID T. ROWE, *Associate Professor, PhD, McMaster University*

ANTHONY J. SILVESTRE, *Assistant Professor, PhD, University of Pittsburgh*

ROBERT M. WADOWSKY, *Associate Professor, Department of Pathology and Chief of Microbiology, Children's Hospital of Pittsburgh, ScD, University of Pittsburgh*

ROBERT B. YEE, *Emeritus Professor, Department of Infectious Diseases and Microbiology, PhD, University of Pittsburgh*

VICTOR L. YU, *Professor of Medicine and IDM, Chief, Infectious Disease Section, Veteran's Administration Medical Center, MD, University of Minnesota*