Dual Bachelor's - Master's Degree (DBMD) Program
For International Students

DBMD Manual
Temple University
Spring 2008

Hai-Lung Dai, Ph.D.
Dean & Laura H. Carnell Professor
College of Science and Technology
Temple University

Olga Vilceanu, Ph.D.
Director of International Programs and Career Services
College of Science and Technology
Temple University

Contact the DBMD Program today at dbmd@temple.edu. Visit www.temple.edu/cst/dbmd.
Welcome to Temple University’s Dual Bachelor’s Master’s Degree Program

The DBMD Program is Temple’s University’s answer to the needs of students who are high achievers, high performers, and highly interested in studying in the United States. DBMD students understand the importance of a graduate degree combined with the educational experience of living and studying at a top research university.

You will have guides on your journey of discovery. We will do everything we can to help you succeed with your ambitious educational goals.

Follow your dream. Whether you want to continue studying in the same field or you are considering a new layer of knowledge and specialization, you can do it in the DBMD Program. We will work with you directly to design a study plan that will allow you to earn a Dual Degree.

Be a leader. Be among the first international graduate students in the DBMD Program, and leave a legacy!

You could be a graduate student in less than 6 months. Most students who think about pursuing a graduate degree in the US will still take undergraduate courses at their home institutions. Only DBMD partner institutions can send applications for early admission into graduate programs at Temple University. You could be a brand new member of the international graduate students’ community at Temple University, as early as Summer 2008!
# Table of Contents

Welcome to Temple University’s Dual Bachelor’s Master’s Degree Program.........................2
DBMD Program: Unique Opportunities.....................................................................................5
  DBMD Program Advantages..............................................................................................5
  About the DBMD Program.................................................................................................5
About Temple University .....................................................................................................6
About Philadelphia..................................................................................................................7
American Culture, American Colleges..................................................................................7
Application and Admission.....................................................................................................8
  DBMD Program Eligibility Guidelines ................................................................................8
  DBMD Application Package Checklist ..............................................................................8
  DBMD Application Procedure ...........................................................................................9
  Checking Admission Status .................................................................................................9
  Visa and International Travel...............................................................................................9
Arrival at Temple University................................................................................................10
DBMD Program Costs..............................................................................................................11
  Scholarships and Financial Aid ........................................................................................11
  Intensive English Language Program ..............................................................................11
Post-Arrival Policies and Support............................................................................................12
  Summer 2008 Orientation: Aug. 11-22 ............................................................................12
  Supplementary English Courses .......................................................................................12
  Academic Advising ............................................................................................................12
  Maintaining Academic Standing .......................................................................................12
  Grades, Transcripts and Diplomas .....................................................................................12
Appendix A. DBMD Available Master’s Programs .................................................................13
  Computer and Information Science, M.S. – College of Science and Technology ..........13
  Chemistry, M.A. -- College of Science and Technology .................................................14
  Music Performance, M.A. – Esther Boyer College of Music and Dance .......................15
  Bioengineering, M.S. -- College of Engineering ............................................................16
  Mechanical Engineering, M.S.E. – College of Engineering ...........................................17
  Civil Engineering, M.S.E. -- College of Engineering ....................................................18
  Electrical Engineering, M.S.E. -- College of Engineering ............................................19
  Physiology, M.S. – School of Medicine ........................................................................20
  Biochemistry, M.S. – School of Medicine .....................................................................21
  Statistics, M.S. – Fox School of Business and Management .........................................22
  Finance, M.S. – Fox School of Business and Management ...........................................23
Appendix B. DBMD Application Forms ..............................................................................24
  International Application for Graduate Study ...............................................................24
  DBMD Application Endorsement ......................................................................................27
DBMD Program: Unique Opportunities

The Dual Bachelor’s-Master’s Degree (DBMD) Program is a unique partnership agreement between Temple University and the international partner universities. DBMD’s goal is to create an excellent multi-disciplinary education to prepare graduates for advanced graduate studies, as well as to provide an opportunity for cross-cultural understanding and multilingual skills necessary to succeed in today’s global economy.

This program combines undergraduate study at the student’s home institution with advanced undergraduate and graduate coursework at Temple University, leading to a Bachelor’s degree from the home institution and a Master’s degree from Temple, within five years. The program was created to meet the needs of high-achieving undergraduate students who wish to accelerate their graduate studies while earning a Master’s degree in select programs at Temple University. See Appendix A for a complete list of approved Master’s programs available.

DBMD Program Advantages

1. Gain early admission to Temple University Graduate Program after three years of undergraduate studies
2. GRE, GMAT and other graduate school examinations not required
3. Only available to approved international partner institutions
4. Opportunity to pursue a graduate degree that’s different from your undergraduate major
5. Set tuition rate for advanced undergraduate and graduate degree studies
6. Scholarship opportunities for international students
7. Summer Orientation offers language and transition training uniquely designed for DBMD students

Dr. Olga Vilceanu, Director of DBMD International Programs and Career Services is the interface between international partner universities and Temple University. She also coordinates with international partner universities on student applications and is available to personally address any questions, comments, or concerns regarding the Program.

Please note that admission decisions are NOT made by the DBMD Office. Graduate school admissions are conducted by the graduate Departments to which the student applies.

Contact Dr. Olga Vilceanu, Director of International Programs and Career Services

phone +1215-204-5759 | email dbmd@temple.edu | fax +1215-204-1255

About the DBMD Program

DBMD is a study-abroad program for international students, based at Temple University campuses in Philadelphia, PA, USA. Successful applicants are granted early admission to a graduate program, contingent on their ability to meet the academic standards and requirements of both the graduate program at Temple University and the undergraduate program at their home institution.

“3+2” Graduation. A successful DBMD graduate will have completed the first three years at their home institution toward a B.S. or B.A. degree. In the summer prior to the fourth year into the DBMD Program, the student will arrive at Temple University for the Summer 2008 Orientation, a module that includes English language training and helps students transition to the US academic environment.
In years 4 and 5, DBMD students fulfill their graduate and undergraduate requirements in a Master’s program at Temple University.

Upon successful completion of the five-year program, students will receive degrees from both universities: a B.S. or B.A. conferred by the home institution, and a M.S. or M.A. conferred by Temple University. A variety of master’s degree programs, listed in Appendix A, are available to students in this program. New master’s degree program opportunities are constantly added, so be sure to contact the DBMD Program for updates and additional information. Current information is also available on the DBMD Program website, at www.temple.edu/cst/dbmd.

Professional and personal support. All DBMD students will convene as a group for organized academic support and social activities throughout their experience at Temple. Additional services are available to support the professional and personal success of DBMD students throughout their stay at Temple. If you have questions or need more information please contact Dr. Olga Vilceanu at +1215-204-5759 or dbmd@temple.edu.

Program participation, customized services, and expedited processing are available for students at partner institutions only.

If your institution does not have a partnership contract with the DBMD Program at Temple University, ask your Office of International Affairs to contact us. We will be happy to initiate communication and help you participate in this exciting dual degree opportunity.

About Temple University

Temple University is the most ethnically and culturally diverse university in the US (Princeton Review, 2007) and a major research and teaching university with more than 35,000 students enrolled in graduate and undergraduate programs in 17 schools and colleges. Temple is also the 6th largest provider of professional education (business, law, dentistry, medicine, pharmacy, and podiatric medicine) in the US.

Through various schools and colleges, the University offers 133 master’s degree and 62 doctoral degree programs. DBMD Program students will have access to

- World-class research and learning facilities
- Study with internationally recognized research faculty
- Academic and language support services
- A faculty body of over 4,000 teachers and researchers from all over the world
- TECH Center, the largest computer center in a US university, with 700 fixed workstations and wireless loaner laptops, a 24-hour Help Desk for students, specialized labs (video editing, graphic design, music composition, “quiet” zone), and social space for students with lounge areas and plasma TVs, as well as a Starbucks Café
- Decades of experience providing high quality education to international students
- Extensive athletic and recreational facilities
About Philadelphia

Philadelphia is one of the oldest and most prominent cities in the US. The Declaration of Independence was signed here on July 4, 1776, and the Founding Fathers also gathered in Philadelphia to write the Constitution of the United States in 1787. Today Philadelphia is the 5th largest metropolitan area in the US and host to over 90 universities and colleges. DBMD students will have the benefit of

- A rich range of historic, cultural, intellectual, and commercial resources
- Ample opportunities for cultural and language exchanges
- Accommodations in campus residence halls, private apartment complexes, or with host families
- Organized social and cultural activities, student clubs and organizations

More information about Philadelphia is available on the following websites:

- www.gophila.com  --  Visitors' information from Greater Philadelphia Tourism Marketing Corporation
- www.philly.com  --  news, classified ads, miscellaneous information
- www.philadelphiausa.travel  --  Philadelphia Convention and Visitors Bureau
- www.septa.com  --  public transportation information
- www.weather.com  --  for weather updates and forecast
- www.state.pa.us  --  official website of the State of Pennsylvania

American Culture, American Colleges

The most important aspect of an American college education is its focus on interdisciplinary, open debate, and diverse career opportunities. At the same time, US higher education institutions are strictly regulated, and substantial efforts are dedicated to ensuring compliance with internal and external academic accreditation bodies. For graduate students, such efforts often result in enriched opportunities to participate in research, as well as develop marketable skills early in their education.

The presence of numerous international students and international faculty is in itself an opportunity to interact not only with the American culture, but indeed with many cultures of the world. Teamwork, individual projects, internships, and voluntary work opportunities abound. At the end of a challenging journey, you will be ready to take on the world on your terms. The American dream extends beyond studying in your preferred field of study, into your career and life choices.
Application and Admission

Students apply to the DBMD Program through the Office of International Affairs at their home institution early in the spring semester of their third year of undergraduate study. Admission is based on academic qualifications and English fluency. Enrollment eligibility is determined at the institution where the student is currently enrolled. Interested students should submit their application package to their home institution's Office of International Affairs (or equivalent).

Application deadline: April 15, 2008

DBMD Program Eligibility Guidelines

The DBMD Program strongly encourages you to apply if you meet the following eligibility criteria:

- You are a third-year undergraduate student
- You completed most of the required coursework for your BA/BS degree
- Your completed coursework meets most of the academic pre-requisites of the graduate program for which you are applying
- You can complete coursework/requirements for both B.A./B.S. and the M.A./M.S. within the 3+2 format
- Grade point average (GPA) for all three years of undergraduate study is 3.5 or higher. Applicants with GPA 3.0 or higher will also be considered for enrollment in DBMD Programs. Check with Office of International Affairs at home institution for details on equivalency between 4.0 system and the system used by your university
- English proficiency: your official test scores for TOEFL, IELTS, or other tests accepted by Temple University (check with Office of International Affairs at home institution) meet the standards specified by the graduate program (see Appendix A for participant Master's programs and language requirements)

DBMD Application Package Checklist

- Fill out online DBMD Program application (available on the DBMD website, www.temple.edu/cst/dbmd) and print copy for Office of International Affairs
- Personal statement (letter of intent about student's selection of the M.A. or M.S. program at Temple University)
- Official test scores for TOEFL, IELTS, or other English proficiency tests accepted by Temple University (check with Office of International Affairs at home institution)
- Official transcript (list of all completed courses and grades, including courses in which the student is enrolled during the Spring 2008 semester)
- Three letters of recommendation from professors with whom the student has completed a course or an internship within the past 24 months
- Application Fee (paid to Office of International Affairs at home institution)

Note: some Masters' programs at Temple University require additional application materials. Please review these department-specific application requirements in Appendix A.
DBMD Application Procedure

□ Applicant fills out and submits Online DBMD Application form. A printed copy of the DBMD Application, along with application fee and all other materials in Application Package are submitted to the Office of International Affairs at home institution.

□ Home institution selects eligible candidates and sends information to DBMD Program, along with
  • A list of all courses the candidate needs to complete to meet the requirements of the B.A. or B.S. degree at the home institution
  • Endorsement Form (available at www.temple.edu/cst/dbmd) completed by Office of International Affairs at home institution confirming that:
    Student is in good academic standing
    Student completed or exceeded most academic requirements (courses) for undergraduate degree
    Is on a track to be awarded a B.A. or B.S. pending completion of the undergraduate curriculum

□ Applicants are informed of the admission decision made by Master’s Program

□ Successful applicants complete enrollment in graduate program

□ Successful applicants complete visa procedures

Checking Admission Status

When your application is processed, you will receive your AccessNet username and a temporary password in the mail. At this point, you will need to go to http://activate.temple.edu to activate your account. Once you have an active AccessNet username and password, you can check the status of your admissions application at http://owlnet.temple.edu.

If you do not have your password, contact the Temple University Help Desk by telephone only at +1215-204-8000. During the semester, they are normally open 24 hours a day. If you don’t get through, to them leave a message, they will call you even overseas! In your message, specify: 1) Telephone number (Country Code/ Number); 2) Time difference; and 3) Time when you are available.

Visa and International Travel

All international students must obtain a student visa (F1) in order to be able to enroll in their graduate program and travel to the United States. As soon as you receive notification that you were admitted to Temple University, you need to initialize your visa procedures.

Step One. Send a copy of your financial documentation directly to the Office of International Services via fax at +1215-204-6166 or email at ois@temple.edu. The rest of your application package will have already been forwarded to the OIS Office. When your application is processed, you will receive your AccessNet username and a temporary password in the mail. At this point, you will need to go to http://activate.temple.edu and activate your account. Once you have an active AccessNet username and password, you can check the status of your admissions application and I-20 application online at http://owlnet.temple.edu.

If you encounter problems during the process of checking your I-20 application status, contact the Office of International Services (OIS) by phone at +1215-204-7708, by fax at +1215-204-6166, or by e-mail at ois@temple.edu.
**Step Two.** After you receive your admission letter, you can apply for an F1 visa at the nearest US Consulate or Embassy (Taiwanese students may contact The American Institute in Taiwan at www.ait.org.tw). If your spouse or children (also called ‘dependents’) plan to accompany you to the US, they will need F2 visas. For detailed information about the F1/ F2 visa process and requirements, visit the US Immigration and Customs Enforcement (US-ICE) website at www.ice.gov/sevis/students/index.htm.

**Step Three.** Make your travel arrangements and purchase your plane tickets. With an F1 visa you can buy a one-way or two-way ticket. Most airlines charge extra for a one-year (or “open”) ticket. It all depends on whether you plan to spend the second summer of the DBMD Program in your home country or in the US. However, keep in mind that a 3+2 graduation goal may mean you need to take courses during summer sessions.

Contact the Office of DBMD Programs if you need help making arrangements to travel from the airport to your campus housing location.

**Arrival at Temple University**

- **August 9-10.** **DBMD Student Orientation.** Mandatory
- **June 29-30.** **Intensive English Language Program (IELP).** Optional
DBMD Program Costs

**Tuition.** DBMD students pay tuition to Temple University at the out-of-state rate during the last two years of the DBMD Program. For the academic year 2008-09, your tuition is about $19,000 including university wide fees. You are expected to take 12-17 of credit hours per semester, in graduate or undergraduate classes.

**Living costs.** You are responsible for rent and additional living costs, including electricity and basic phone/internet/cable TV service. Most graduate students live in graduate housing and eat at home or buy their food at campus lunch trucks. Housing options include one-, two-, and three-bedroom apartments on main campus and in center city. Housing deposits ($250) are due by May 1 for upcoming Fall 2008 semester. For more details about housing, visit [www.temple.edu/studentaffairs/housing/billing/GraduateHousingCosts.htm](http://www.temple.edu/studentaffairs/housing/billing/GraduateHousingCosts.htm).

Meal plans are available at student dining centers, for around $200/month. For more details on meal plans, visit the website of Temple Dining Services at [http://www.temple.edu/dining/html/mealplans.html](http://www.temple.edu/dining/html/mealplans.html).

**Health insurance.** $1,000 to $2,000/year. All international students must purchase health insurance upon their arrival. Alternate health insurance covering you in the US may be considered, but it is mandatory that you are covered by an insurance plan while in the US. For more details, visit the Human Resources website and go to the Student Health Insurance page ([http://www.temple.edu/hr/students/](http://www.temple.edu/hr/students/)).

**Scholarships and Financial Aid**

Based on demonstrated need or merit, you may qualify for scholarships of at least $2,000. Interested applicants should apply for scholarship or financial aid after they received the admission letter from their graduate department at Temple University. For further information, contact Dr. Olga Vilceanu, Director of International Programs and Career Services, at dbmd@temple.edu or +1215-204-5759.

Additional travel funds may be available from your graduate department, if your research papers are accepted for presentation at regional or national conferences.

To ask about opportunities to obtain financial aid from university, governmental, or private sources in your own country, contact the Office of International Programs at your institution.

**Intensive English Language Program**

Students with low English scores or low confidence in their English speaking abilities are strongly encouraged to take advantage of the Intensive English Language Program. Tuition for a 5-weeks English module (July 2-Aug. 8) is around $1,000. In addition to English language training, students can also participate in educational trips that will help them accommodate to life in Philadelphia and learn about cultural and economic resources.
Post-Arrival Policies and Support

Summer 2008 Orientation: Aug. 11-22

This **mandatory** two-week orientation helps students prepare for the requirements of graduate school and life in the US. Students complete individual and team projects, develop verbal and written communication skills, and participate in educational trips that will help them accommodate to life at Temple University and in Philadelphia.

Supplementary English Courses

Students with low TOEFL scores may be required to take additional language training during the Fall 2008 semester. If you have any additional questions or concerns, contact the DBMD Program directly at dbmd@temple.edu.

Academic Advising

DBMD students will be strongly encouraged to make use of the advising opportunities offered by their graduate department and other programs with which the DBMD Program has established partnerships. Examples of advising opportunities include: mentoring by faculty and experienced graduate students; language/culture partnerships with US students; and communication with the graduate administration and DBMD Program staff.

Maintaining Academic Standing

Current Graduate School policies require a minimum cumulative GPA of 3.0 for graduation. A student who receives more than two grades below "B-" or more than one grade of "F" in their **graduate courses** will be dismissed for failure to maintain satisfactory grades.

As an international student, "full time student" status is maintained by registering for at least 9 graduate credit-hours per semester. DBMD students will take both upper-level undergraduate courses and graduate courses to meet the requirements of their dual degree program. Most graduate courses are 3 credit hours (meaning 3 hours of class per week). Undergraduate courses may be 1-, 2-, or 3-credit-hours. Check the **Online Schedule** to determine the type and number of courses that will help you complete the requirements of both degrees you are pursuing.

Grades, Transcripts and Diplomas

The typical Master's program requires 36 credits of graduate course work, or approximately 12 graduate courses. However, this number may vary depending on the school that offers the graduate program.

The DBMD Program requires that you satisfy the graduation requirements of both your home institution (for the Bachelor's degree) and Temple University (for the Master's degree). Temple will send your official grade transcript to your undergraduate institution in early Spring of your final DBMD year, and help you initiate the graduation process. Once your home institution issues your Bachelor's degree, Temple University will award your Master's degree, provided that you have satisfactorily met the requirements for your graduate degree.
Appendix A. DBMD Available Master’s Programs

Computer and Information Science, M.S. --College of Science and Technology

The M.S. in Computer and Information Science emphasizes a general approach to the study of computing, including courses in artificial intelligence, collaborative systems, computer architecture, database systems, graphics and image processing, networking and communications, operating systems, software engineering, and theoretical areas. Curriculum prepares students for careers in systems analysis, teaching, and research.

ADMISSION REQUIREMENTS

□ DBMD Application Package
□ Resume

• Academic pre-requisites
  • A minimum of one year of programming and data structures using the C++ or Java programming language and one year of theoretical calculus are required.
  • Compatible majors/ disciplines: Computer Science, Information Science, Mathematics, Science, or Engineering. Undergraduate major must include a considerable amount of coursework in Computer and Information Science.

Program Coordinator
Jacalyn Harriz, harriz@temple.edu
Tel: +1215-204-1614

Graduate Chairperson
Arthur T. Poe, arthur.poe@temple.edu
Tel: +1215-204-6481

Job Placement
Graduates often find employment as systems programmers for research organizations, computer centers, or computer manufacturers. Alternatively, many become involved in the design and implementation of new applications software or the planning and evaluation of computer-based systems. Prospective employers include the government or industrial firms that utilize computers for research and/or production purposes.

Number of graduate credits required beyond Bachelor's degree: 27

Visit the DBMD Program website for more details about required and elective courses, graduation options, faculty research interests, and internship requirements. www.temple.edu/cst/dbmd
Chemistry, M.A. -- College of Science and Technology

The chemistry graduate program is research oriented. Classroom attendance and familiarization with the chemical literature are considered integral. Required course workload is relatively light. Students are encouraged to take courses in related areas, such as physics, biology and computer science.

Areas of Concentration
DBMD students can specialize in:
- **Theoretical Chemistry**: Analytical Chemistry, Biochemistry, Inorganic Chemistry, Organic Chemistry and Physical Chemistry
- **Applied Chemistry**: medicinal, nanoscience, photonics, surface science, environmental chemistry, materials and polymers

ADMISSION REQUIREMENTS
- DBMD Application Package
- Resume
- Academic pre-requisites
  - Compatible majors/ disciplines: Chemistry.

Program Coordinator
Dr. Frank Spano francis.spano@temple.edu
Tel: +1215-204-5203

Graduate Chairperson
Dr. Robert Levis rjlevis@temple.edu
Tel: +1215-204-5241

Job Placement
The majority of students find employment in the chemical industry. A lesser fraction pursue doctoral degrees and academic positions or positions in government laboratories.

Number of graduate credits required beyond Bachelor’s degree: 20

Visit the DBMD Program website for more details about required and elective courses, graduation options, faculty research interests, and internship requirements. [www.temple.edu/cst/dbmd](http://www.temple.edu/cst/dbmd)
Music Performance, M.A. – Esther Boyer College of Music and Dance

Boyer College has been ranked among the top 30 music schools in the U.S. Students pursuing a master's degree in music performance specialize in study of major instrument and take courses outside the major area that support advanced musical and academic development. The Department of Instrumental Studies provides potential professional performer/teachers with the finest instrumental training within the context of a comprehensive university. Students study privately with professional artist-teachers and enjoy opportunities for performance in numerous large and chamber music ensembles.

Areas of Concentration
- Double Bass
- Violin
- Cello
- Viola

ADMISSION REQUIREMENTS
- DBMD Application Package
- Specialized admission criteria: auditions, portfolios, interviews, recommendations, departmental term papers, and standardized examinations
- English language proficiency. Minimum TOEFL scores: 525 paper-based, 197 computer-based, or 71 internet-based.
  - Academic pre-requisites
  - Compatible majors/disciplines: Music.

Graduate Admissions
James Short  jshort@temple.edu
Tel: +1215-204-8598

Graduate Chairperson
Dr. Jeffrey Solow  jeffrey.solow@temple.edu
Tel: +1215-204-5527

Job Placement
The program prepares musicians for either professional activity or doctoral study.

Number of graduate credits required beyond Bachelor’s degree: 32

Visit the DBMD Program website for more details about required and elective courses, graduation options, faculty research interests, and internship requirements. www.temple.edu/cst/dbmd
Bioengineering, M.S.--College of Engineering

The M.S. in Bioengineering program offers students graduate-level interdisciplinary education and research opportunities in bioengineering and engineering applications in related healthcare fields.

Areas of Concentration
DBMD students will study and collaborate with faculty in the College of Science and Technology as well as the School of Medicine, in one of the concentration areas:

- **Biomechanics**: computer-aided design of composite biomaterials, mechanical properties of orthopedic implant materials, design of orthopedic implants, and modeling of biomaterial behavior
- **Biomaterials**: wear of ultra-high molecular weight polyethylene, polymer chemistry, and interfacial chemistry
- **Bioelectronics**: sensor development and image analysis

ADMISSION REQUIREMENTS
- □ DBMD Application Package
- □ Resume
- • **Academic pre-requisites**
  - Coursework required: a course in general chemistry and a two-year sequence in mathematics
  - Compatible majors/disciplines: mechanical or electrical engineering, or in biological or physical sciences. Applicants currently pursuing an undergraduate work other than engineering may need certain additional coursework. Contact DBMD for more information:

Program Coordinator
George R. Baran    george.baran@temple.edu
Tel: +1215-204-8824

Graduate Chairperson
Vallorie Peridier,   vallorie.peridier@temple.edu
Tel: +1215-204-7143

Job Placement
Graduates of the program are prepared for careers in industry or may choose to pursue a program of study leading to the Ph.D. degree. Industry employment may be available in a variety of biomedical industries ranging from device manufacturers to design engineering. Other possibilities include careers in government, either in regulatory agencies or with the U.S. Patent and Trademark Office. Students who complete an M.S. with a thesis are prepared to enter a doctoral program.

Interdisciplinary Study
The program encourages interdisciplinary research with other branches of engineering as well as with various departments of the College of Science and Technology and the School of Medicine.

Number of graduate credits required beyond Bachelor’s degree: 24 – 27

Visit the DBMD Program website for more details about required and elective courses, graduation options, faculty research interests, and internship requirements. www.temple.edu/cst/dbmd
Mechanical Engineering, M.S.E. – College of Engineering

The program provides students from diverse basic-science backgrounds with the fundamental technical-engineering expertise necessary to work in an interdisciplinary field such as bioengineering or material science.

Areas of Specialization
- Biomaterials, composite materials and design, finite element analysis
- Computational fluid dynamics, fluidics and energetic
- Target drug delivery and tissue engineering

ADMISSION REQUIREMENTS
- DBMD Application Package
- Resume
- English language proficiency. Minimum TOEFL scores: 550 paper-based, 213 computer-based, or 79 internet-based

- Academic pre-requisites
  - Compatible majors/ disciplines: mechanical engineering technology, mathematics, or physical sciences. Applicants without an engineering degree may require certain prerequisites

Program Coordinator
Vallorie Peridier  vallorie.peridier@temple.edu
Tel: +1215-204-7143

Graduate Chairperson
Mohammed F. Kiani  mkiani@temple.edu
Tel: +1215-204-4644

Job Placement
Graduates with the M.S.E. in Mechanical Engineering are employed in high-tech industries and government laboratories in design, analysis, and applications. Typical employers include manufacturing companies; pharmaceutical and biotechnology companies; companies involved in research and development in fluid flow and heat transfer; computer-aided designers and manufacturers; computer technology firms; and government offices. Students who complete an M.S.E. with a thesis are prepared to enter a doctoral program.

Interdisciplinary Study
The program encourages interdisciplinary research with other branches of engineering as well as with various departments of the College of Science and Technology and School of Medicine.

Number of graduate credits required beyond Bachelor’s degree: 24 – 27

Visit the DBMD Program website for more details about required and elective courses, graduation options, faculty research interests, and internship requirements.  www.temple.edu/cst/dbmd
Civil Engineering, M.S.E.--College of Engineering

The program helps students to develop technical competency in civil and environmental engineering. Continued search for and use of knowledge serves as a catalyst for students’ development as active, articulate, and socially aware individuals. Graduates of the program are key contributors to the civil engineering and environmental engineering professions.

Areas of Specialization

Civil Engineering Systems: construction engineering, structural engineering, and transportation engineering

Environmental Engineering: fundamentals and applications of water resources engineering, pollution in natural systems (water and air), and engineered treatment and remediation systems

ADMISSION REQUIREMENTS

☐ DBMD Application Package
☐ Resume
☐ English language proficiency. Minimum TOEFL scores: 550 paper-based, 213 computer-based, or 79 internet-based
☐ Academic pre-requisites

☐ Compatible majors/disciplines: civil or environmental engineering, civil and construction engineering, technology, mathematics, geology or other physical science. Applicants currently pursuing undergraduate work other than engineering may need certain additional coursework. Contact DBMD for more information

Program Coordinator
George R. Baran  george.baran@temple.edu
Tel: +1-215-204-8824

Graduate Chairperson
Philip Udo-Inyang, udoinyan@temple.edu
Tel: +1-215-204-7831

Job Placement

M.S.E. graduates in Civil Engineering are employed by various engineering companies as well as government agencies in design, analysis, and applications. Typical examples are water treatment facilities and regulatory agencies engaged in environmental regulation and pollution control; companies involved in construction project management; and those involved in structural design and analysis of buildings, bridges, and other structures. Students who complete an M.S.E. with a thesis are prepared to enter a doctoral program.

Interdisciplinary Study

The program encourages interdisciplinary research with other branches of engineering as well as with various departments of the College of Science and Technology.

Number of graduate credits required beyond Bachelor’s degree: 24 – 27

Visit the DBMD Program website for more details about required and elective courses, graduation options, faculty research interests, and internship requirements.  www.temple.edu/cst/dbmd
Electrical Engineering, M.S.E. --College of Engineering

The program offers practice-oriented graduate-level education in electrical and computer engineering.

Areas of Specialization
DBMD students select and then focus their studies within one of three areas of specialization:

- **Computer Architectures and Microelectronics**: computer design, development, software-level testing, hardware realization and integrated circuit layout, and MOS integrated circuit design for high-speed digital computation and data communication.

- **Digital Signal Processing and Digital Data Communication**: filtering and modulation; detection of multidimensional signals in the presence of noise; voice signal processing; speaker identification; multisensor data fusion; array signal processing; performance evaluation of local area and wireless networks, broadband networks, and protocols; detection of faults in communication networks; and intrusion detection, visualization, and security of multicast networks.

- **Intelligent Systems and Control**: interactive multimedia, intelligent tutoring systems, robust and optimal control, and neuro-fuzzy control.

ADMISSION REQUIREMENTS

- **DBMD Application Package**
- **Resume**
- **English language proficiency.** Minimum TOEFL scores: 550 paper-based, 213 computer-based, or 79 internet-based.
- **Academic pre-requisites**
  - Compatible majors/disciplines: electrical or computer engineering, technology, mathematics, physical sciences, other branches of engineering. Applicants without an engineering degree may require certain prerequisites. The Department of Electrical and Computer Engineering will identify the needed coursework on a case-by-case basis.

Program Coordinator
Musoke H. Sendaula  musoke@temple.edu
Tel: +1215-204-7819

Chairperson
Saroj K. Biswas  sbiswas@temple.edu
Tel: +1215-204-8403

Job Placement
Graduates with the M.S.E. in Electrical Engineering are employed in high-tech industries and government laboratories with responsibilities for design, analysis, and applications of electrical engineering principles. Students who complete an M.S.E. with a thesis are prepared to enter a doctoral program.

Interdisciplinary Study
The program encourages interdisciplinary research with other branches of engineering as well as with various departments of the College of Science and Technology.

Number of graduate credits required beyond Bachelor’s degree: 24 – 27

Visit the DBMD Program website for more details about required and elective courses, graduation options, faculty research interests, and internship requirements.  [www.temple.edu/cst/dbmd](http://www.temple.edu/cst/dbmd)
Physiology, M.S. – School of Medicine

Graduate students may pursue their research interests in Physiology using a wide variety of techniques from the molecular to the systemic level. The Physiology Department has faculty members conducting research and publishing in the areas of cardiac, cardiovascular, gastrointestinal, smooth muscle, platelets, and pulmonary physiology. Graduate programs with an emphasis on exercise physiology are provided in collaboration with the research faculty of the Kinesiology Department. Graduates pursue research, corporate, or academic positions.

This program requires a relatively large number of credits along with the completion of original research as a master student. Only the most talented and ambitious students should apply for this program.

ADMISSION REQUIREMENTS

- DBMD Application Package
- English language proficiency. Minimum TOEFL scores: 550 paper-based, 213 computer-based, or 79 internet-based
- Academic pre-requisites
  - Compatible majors/disciplines: biochemistry, biology, biophysics, chemistry, engineering, physics, or zoology
  - Coursework in biology and chemistry is required

Program Coordinator
Steven P. Driska, Ph.D.
steven.driska@temple.edu
Tel: +1-215-707-3283

Graduate Chairperson
Satya Kunapuli, Ph.D.
satya.kunapuli@temple.edu
Tel: +1-215-707-4615

Job Placement
Graduates with the M.S. degree typically find employment in research institutions, pharmaceutical industry, secondary education, and government. Students with the M.S. degrees can pursue professional education in medicine, dentistry, and veterinary medicine.

Number of graduate credits required beyond the Bachelor’s degree: 36

Visit the DBMD Program website for more details about required and elective courses, graduation options, faculty research interests, and internship requirements. www.temple.edu/cst/dbmd
Biochemistry, M.S. – School of Medicine

The graduate program provides training in the theory and practice of Biochemistry and Molecular Biology for eventual service in research and teaching positions. The program is aimed at broad training in the various major areas of Biochemistry and Molecular Biology, with in-depth training in one area of specialization. Students are given opportunities for instruction in diverse laboratory techniques through a series of lecture and laboratory courses, together with a program of experimental research under the guidance of a faculty member.

Areas of Concentration

- Enzymology, structure and biosynthesis of membranes, biochemical regulation of metabolism and of cell division, biochemical mechanisms of blood coagulation, lipid and carbohydrate metabolism, physical chemistry and kinetics, mechanisms of hormone action, nucleic acid and protein synthesis, and regulation of gene expression
- Multidisciplinary instruction is available in the fields of molecular biology, chemical carcinogenesis, tumor enzymology, and the biochemistry of aging

ADMISSION REQUIREMENTS

- DBMD Application Package
- English language proficiency. Minimum TOEFL scores: 550 paper-based, 213 computer-based, or 79 internet-based
- Academic pre-requisites
  - Compatible majors/ disciplines: biology or chemistry
  - Coursework required: 1 year biological science (biochemistry, molecular biology); 1 year of general chemistry; 1 year organic chemistry; 1 year physics; and Mathematics through Calculus. Physical Chemistry is also desirable.
  - Mathematics through Calculus. Physical Chemistry is also desirable.

Program Coordinator
Parkson Lee-Gau Chong, Ph.D.
parkson.lee-gau.chong@temple.edu
Tel: +1-215-707-4182

Graduate Chairperson
Dianne R. Soprano, Ph.D.
dianne.soprano@temple.edu
Tel: +1-215-707-3266

Job Placement
The graduate faculty has designed a well-balanced program that can be individually tailored to meet the interests and needs of each student and to fully prepare each student for a career in academic or industrial biochemistry or related fields. Program provide training in theory and practice of biochemistry for eventual placement in research and teaching positions.

Number of graduate credits required beyond the Bachelor’s degree: 24

Visit the DBMD Program website for more details about required and elective courses, graduation options, faculty research interests, and internship requirements. www.temple.edu/dbmd
Statistics, M.S. – Fox School of Business and Management

The Department of Statistics offers an M.S. program through which students acquire in-depth knowledge of statistics and specialize in statistical theory and applications

ADMISSION REQUIREMENTS

☐ DBMD Application Package
☐ Leadership Essay: describe an incident from your personal experiences that typifies your definition of leadership. Specifically address ethics, diversity, collaboration and motivation
☐ Optional Essay: any additional information or material (weaknesses or strengths)
☐ Resume
☐ English language proficiency. Minimum TOEFL scores: 575 paper-based, 230 computer-based, or 88 internet-based
☐ Academic pre-requisites
  • Compatible majors/ disciplines: business. Students must have taken two semesters of university-level calculus or its equivalent. A course in linear algebra is also desirable.

Program Coordinator
Dr. Jagbir Singh
jagbir@temple.edu
Tel: +1-215-204-6873

Graduate Chairperson
Dr. Damaraju Raghavarao
draghava@temple.edu
Tel: +1-215-204-8892

Job Placement
Graduates are trained to serve as professional statisticians in industry, research organizations, or government.

Number of graduate credits required beyond Bachelor’s degree: 30

Visit the DBMD Program website for more details about required and elective courses, graduation options, faculty research interests, and internship requirements. www.temple.edu/cst/dbmd
Finance, M.S. – Fox School of Business and Management

The program is ideally suited to business professionals who wish to develop advanced mastery of business specialization. Our approach to graduate education helps develop practical expertise through case analyses and presentations, interaction with business practitioners, and team projects. The Fox School prepares students to step immediately into key management roles in highly specialized fields. The Fox School is the region's second largest business graduate school, with over 1,300 students studying in 35 graduate business areas of concentration.

ADMISSION REQUIREMENTS

- **DBMD Application Package**
  - **Leadership Essay**: describe an incident from your personal experiences that typifies your definition of leadership. Specifically address ethics, diversity, collaboration and motivation
  - **Optional Essay**: any additional information or material (weaknesses or strengths)
  - **Resume**
  - **English language proficiency. Minimum TOEFL scores**: 550 paper-based, 213 computer-based, or 79 internet-based

- **Academic pre-requisites**
  - Compatible majors/disciplines: business. Students who are not in an undergraduate business degree program may not be adequately prepared for the advanced level courses offered in this Masters program, and may be required to take a number of M.B.A. core courses. The department offering the courses in the area of specialization will identify the core requirements on a case-by-case basis.

**Program Coordinator**
Jon Scott, Faculty Advisor
jonathan.scott@temple.edu
Tel: +1215-204-8453

**Graduate Chairperson**
Robert Bonner, Assistant Dean, MBA & MS Programs
bob.bonner@temple.edu
Tel: +1215-204-7678

**Job Placement**
Graduates of the Fox School of Business and Management obtain jobs in computer/information technology; consulting; consumer products and services; energy/utilities; financial services/banking; government; healthcare; industrial products and services; manufacturing; the pharmaceutical industry; telecommunications; and tourism/transportation.

**Interdisciplinary Study**
The program encourages interdisciplinary research with other branches of engineering as well as with various departments of the College of Science and Technology

**Number of graduate credits** required beyond Bachelor’s degree: 42

Visit the DBMD Program website for more details about required and elective courses, graduation options, faculty research interests, and internship requirements. [www.temple.edu/cst/dbmd](http://www.temple.edu/cst/dbmd)
Appendix B. DBMD Application Forms

Temple University's
Dual Bachelor's Master's Degree Program (DBMD)
Fall 2008

International Application for Graduate Study

Instructions
Fill out and submit this Application form electronically, then print a copy for the Office of International Affairs at your university.

Application Fee. Contact the Office of International Affairs at your university to pay the DBMD Program application fee.

1. Full Legal Name
   Last/Surname/Family Name ___________
   First Name ___________
   Middle Initial ___________

2. Country of Citizenship ___________

3. English Nickname Used (if any) ___________

4. Date of Birth (mm/dd/yyyy) ___________

5. Gender
   □ Male
   □ Female

6. Permanent Home Address
   Street, Building, Number ___________
   City ___________
   County/ State ___________
   ZIP/ Postal Code ___________
   Home telephone number (include country code) ___________
   E-mail ___________

7. Specify DBMD Partner University where you are currently pursuing an undergraduate degree
   University of Science and Technology of China, Hefei, China
   Chung Yuan Christian University, Taoyuan County, Taiwan
   Fu Jen Catholic University, Taipei County, Taiwan
   National Cheng Kung University, Tainan City, Taiwan
   National Sun Yat Sen University, Kaoshiung City, Taiwan
   National Taiwan Normal University, Taipei City, Taiwan
   National University of Science and Technology, Taipei City, Taiwan
   Tamkang University, Taipei County, Taiwan
   Tunghai University, Taichung County, Taiwan

8. Number of semesters of undergraduate work completed
   5 semesters
   6 semesters
   7 semesters

9. Major/Field ___________
10. Graduate Program(s) of interest
   Master of Chemistry (College of Science and Technology)
   Master of Bioengineering (College of Engineering)
   Master of Biotechnology (Colleges of Science and Technology-Medicine)*
   Master of Computer and Information Science (College of Science and Technology)
   Master of Civil and Environmental Engineering (College of Engineering)
   Master of Electrical Engineering (College of Engineering)
   Master of Mechanical Engineering (College of Engineering)
   Master of Geology (College of Science and Technology)*
   Master of Finance (Fox School of Business)
   Master of Financial Engineering (Fox School of Business)
   Master of Geography and Urban Studies (College of Liberal Arts)
   Master of History (College of Liberal Arts)
   Master of Information Technology (College of Science and Technology)*
   Master of International Business (Fox School of Business)
   Master of International Studies (College of Liberal Arts)
   Master of Physics (College of Science and Technology)
   Master's of Music Performance: Violin, Viola, Cello, or Double Bass degrees (Boyer College of Music and Dance)

11. Have you previously applied to Temple?
   Undergraduate Yes  No
   Graduate Yes  No

12. Date on which you took/will take the required English Proficiency Test
    TOEFL ___________ Score ___________
    TSE ___________ Score ___________
    IELTS ___________ Score ___________
    Institutional TOEFL ___________ Score ___________
    Other test ___________ Score ___________

13. Undergraduate Grade Average for all undergraduate course work (specify system/ scale/ maximum) ____

14. Identify who will provide recommendation letters
    Name ___________
    Title ___________
    Affiliation ___________
    Telephone ___________
    E-mail ___________
    Name ___________
    Title ___________
    Affiliation ___________
    Telephone ___________
    E-mail ___________
    Name ___________
    Title ___________
    Affiliation ___________
    Telephone ___________
    E-mail ___________
15. Statement of Residence (Required of ALL Applicants)
   Country of Citizenship __________________
   Native Language __________________
   Type of U.S. Visa (if alien): F1 J1 Other

Other relevant information

16. Any paid or voluntary work, internship, teaching, industrial, business, or other professional experience.
   Dates of employment (mm/yyyy – mm/yyyy) ___________
   Position / Title
   Company / Organization
   Location
   Telephone

17. Activities in professional, community, and collegiate organizations
   ______________________ ______________________
   ______________________ ______________________
   ______________________ ______________________

18. Publications, awards, and creative work
   ______________________ ______________________
   ______________________ ______________________
   ______________________ ______________________

19. Housing Preferences
   I would like to live in graduate housing on main campus
   I would like to live in graduate housing in center city
   I will make my own housing arrangements

20. English Language Program
   I plan to enroll in the 5-week IELP module
   I am not interested in the 5-week IELP module

ALL APPLICANTS MUST READ AND SIGN THE FOLLOWING STATEMENT

I understand that Temple University admissions personnel will have access to my Temple University student record and that withholding requested information or giving false information will make me ineligible for admission to the University and subject to dismissal if admitted.

With this in mind, I certify that the above statements are correct and complete and, if admitted, I agree to abide by the published policies, rules, and regulations of Temple University. I further understand that from the time I file my application with the DBMD Program at Temple University, it is my responsibility to know all of the rules, requirements, and exemptions for my intended degree program.

In the event that I am not admitted into the degree program for which I hereby apply, I understand that I will not be entitled to any tuition refund for any courses taken while my application was under consideration.

Signature ____________
Date ____________
Temple University’s
Dual Bachelor’s Master’s Degree Program (DBMD)
Fall 2008

DBMD Application Endorsement

Instructions for Applicant
Complete “Applicant Information Section” and forward it to the Office of International Affairs at home institution. Evaluator will send Application Endorsement directly to the Dual Bachelor’s Master’s Degree (DBMD) Program at Temple University. Upon receipt, the information becomes the property of Temple University and will not be returned. Temple University reserves the right to verify all reports with the Office of International Affairs at home university.

APPLICANT INFORMATION SECTION
Name of Applicant ______________________
Gender: ☐ Female ☐ Male
Home University __________________________ Country __________________________
Student ID Number __________________________
Student Home Address (NUMBER & STREET APT.) __________________________
(CITY/ STATE/ POSTAL CODE/ COUNTRY) __________________________

Applying for Dual Bachelor’s Master’s Degree (DBMD) in __________________________ (department/program) at Temple University

ALL APPLICANTS MUST READ AND SIGN THIS AUTHORIZATION FOR WAIVER*:
I understand my right under the U.S. Family Educational Rights and Privacy Act of 1974 to review confidential appraisals placed in my file that are submitted with reference to admission to a graduate or other school. ☐ do ☐ do not waive my right to review this reference report.

Applicant’s Signature __________________________ Date __________________________
* Agreeing to waive your right to review this reference report is not required as a condition of admission to Temple University

Instructions for Office of International Affairs representative
Complete “Application Endorsement Section” and attach Endorsement to application package for Dual Bachelor’s Master’s Degree (DBMD) Program at Temple University. Your candid completion of this form is greatly appreciated. You can be assured that this report is completely confidential and will not be shared with the applicant, provided s/he has waived her/his rights to review this report.

APPLICATION ENDORSEMENT SECTION
Name of Application Endorser ______________________
Office __________________________
Contact Information (e-mail, telephone, fax) __________________________

After reviewing all information submitted by this Applicant, I can hereby state that the student:

<table>
<thead>
<tr>
<th>Is in good academic standing ☐Yes ☐No</th>
<th>Has an Average Grade (all undergraduate course work) of _____________.(please use the grading system of your University)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is on a track to be awarded a B.A. or B.S. pending completion of the undergraduate curriculum ☐Yes ☐No</td>
<td>Completed or exceeded most academic requirements (courses) for undergraduate degree at _____________.(University) ☐Yes ☐No</td>
</tr>
<tr>
<td>Needs to complete the following academic requirements, in order to be eligible for a Bachelor’s degree:</td>
<td>Can meet the undergraduate degree academic requirements by taking the following graduate and/or undergraduate courses offered by Temple University:</td>
</tr>
<tr>
<td>Endorser Signature __________________________ Date __________________________</td>
<td></td>
</tr>
</tbody>
</table>

Contact the DBMD Program today at dbmd@temple.edu. Visit www.temple.edu/cst/dbmd.