ENTOMOLOGY (ENTM)
Graduate Degree Program
College: Computer, Mathematical, and Natural Sciences

Abstract
The Department of Entomology offers Doctor of Philosophy and Master of Science degrees. Graduate students may conduct research in a range of both basic and applied topics, including insect ecology and behavior, physiology, morphology, evolution and biosystematics, insect pathology, molecular biology and genetics, aquatic entomology, pollinator biology and apiculture, and integrated pest management.

Employment opportunities for graduates exist in industry; academia and extension; federal, state and local governments; private and non-profit arenas; and in international and national spheres.

Financial Assistance
Graduate students are supported primarily in two ways. Many students are supported by extramural funding sources, usually obtained by the student’s faculty advisor or student for research on a specific topic. The second type of support is provided by the department from internal funds via university and departmental fellowships, and teaching and research assistantships. Teaching and research assistantships are available on a competitive basis. Teaching assistants usually instruct undergraduate laboratory and recitation classes and receive in return a tuition waiver of ten credits each semester. Those students whose records indicate superior academic achievement and promise may also be competitive for university and departmental fellowships. Several part-time employment opportunities are also available in governmental and private research and developmental laboratories in the area. Regardless of the initial source of funding, the department makes a financial commitment to each graduate student. In the case of master’s students, support is provided for the first three years of the program only. In the case of doctoral students, five years of support is provided but must be used during the first six years of the student’s program. Support is usually for the full 12 months per year.

Contact
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Graduate Director
Department of Entomology
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4291 Fieldhouse Drive
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College Park, MD 20742
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Email: jshultz@umd.edu
Website: http://www.entm.umd.edu

Courses: BSCI ENTM


Admissions
General Requirements
• Statement of Purpose
• Transcript(s)
• TOEFL/IELTS/PTE (international graduate students (https://gradschool.umd.edu/admissions/english-language-proficiency-requirements))

Program-Specific Requirements
• Letters of Recommendation (3)
• Graduate Record Examination (GRE)
• CV/Resume
• Description of Research

Students applying for graduate work in entomology are expected to have a strong background in the biological or agricultural sciences, chemistry, genetics, and mathematics. An undergraduate degree in entomology is not required, but a strong basic preparation is preferred for admission to the program.

Admission is granted on the basis of the following criteria by the Graduate Affairs Committee: Analysis of transcripts, including course selection and GPA, letters of recommendation, statement of purpose for pursuing the degree, GRE scores, and acceptance by a graduate faculty advisor. International applicants must also submit proof of English proficiency (TOEFL, iBT or IELTS scores). Acceptance by an advisor is absolutely required; thus, it helps to make contact with faculty when applying.

Upon admission to the M.S. or Ph.D. program, the student’s study committee suggests a program of course work and approves a detailed research proposal.

Applicants are encouraged to contact Entomology faculty with shared research interests. To explore matches of your interests with those of ENTM faculty, see the Entomology website (http://entomology.umd.edu).

For more admissions information or to apply to the program, please visit our Graduate School website: www.gradschool.umd.edu/admissions

Application Deadlines

<table>
<thead>
<tr>
<th>Type of Applicant</th>
<th>Fall Deadline</th>
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<tr>
<td>Domestic Applicants</td>
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<td>US Citizens and Permanent</td>
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<td>Residents</td>
<td>14 Dec</td>
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<td>International Applicants</td>
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<tr>
<td>F (student) or J (exchange visitor) visas; A, E, G, H, I and L visas and immigrants</td>
<td>14 Dec</td>
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Other Deadlines: Please visit the program website at http://www.entm.umd.edu

Requirements
• Entomology, Doctor of Philosophy (Ph.D.) (https://academiccatalog.umd.edu/graduate/programs/entomology-entm/entomology-PhD)
Facilities and Special Resources

The department is housed in a modern research facility on campus, where state-of-the-art offices, laboratories, environmental growth chambers, multimedia classrooms, and lecture halls provide an excellent environment for research and teaching. Students have individual workstations and access to sophisticated computer graphic facilities. The department also shares extensive technical expertise and scientific equipment with other departments on campus. The university’s strategic location in the Washington, DC area provides many opportunities for students to conduct research and gain hands-on experience in federal facilities, such as the Smithsonian Institution, USDA-ARS Beltsville Agricultural Research Center, Walter Reed Army Institute of Research, and NIH. Vast resources are available in the university’s library system and nearby federal libraries. The USDA’s National Agriculture Library at Beltsville is only four miles from the campus, and the Library of Congress is in nearby Washington, DC. Besides the main campus, the Maryland Agriculture Experiment Station has Research and Education Centers in the state where field and laboratory work is carried out on urban and agricultural insects. Land use and technical services at these centers are available to faculty and students.

Faculty

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First/Middle Name</th>
<th>Graduate Faculty Status</th>
<th>Academic Credentials</th>
<th>Positions</th>
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<tbody>
<tr>
<td>Barbosa</td>
<td>Pedro</td>
<td>Full Member</td>
<td>B.S., City University of New York City Entomology College, 1966; M.S., University of Massachusetts-Amherst, 1969; Ph.D., 1971.</td>
<td>Professor Emeritus, Entomology</td>
</tr>
<tr>
<td>Brown</td>
<td>Amy</td>
<td>Full Member</td>
<td>B.S., University of Florida, 1975; M.S., Michigan State University, 1980; Ph.D., University of Maryland-College Park, 1993.</td>
<td>Professor, Entomology</td>
</tr>
<tr>
<td>Davidson</td>
<td>John A</td>
<td>Full Member</td>
<td>B.A., Columbia Union College, 1955; M.S., University of Maryland-College Park, 1957; Ph.D., 1960.</td>
<td>Professor Emeritus, Entomology</td>
</tr>
<tr>
<td>Dively</td>
<td>Galen II</td>
<td>Full Member</td>
<td>B.S., Juniata College, 1966; M.S., Rutgers University-New Brunswick, 1968; Ph.D., 1974.</td>
<td>Professor Emeritus, Entomology</td>
</tr>
<tr>
<td>Fritz</td>
<td>Megan</td>
<td>Non-Member</td>
<td>A.B., Hamilton College, 1993; Ph.D., University of Hawai'i, 2004.</td>
<td>Assistant Professor, Entomology</td>
</tr>
<tr>
<td>Gruner</td>
<td>Daniel</td>
<td>Full Member</td>
<td>A.B., Hamilton College, 1993; Ph.D., University of Hawai'i, 2004.</td>
<td>Associate Professor, Entomology</td>
</tr>
<tr>
<td>Hamby</td>
<td>Kelly</td>
<td>Full Member</td>
<td>B.S., UNIVERSITY OF CALIFORNIA, DAVIS, 2009; Ph.D., UNIVERSITY OF CALIFORNIA, DAVIS, 2014</td>
<td>Assistant Professor, Biological Sciences</td>
</tr>
<tr>
<td>Hellman</td>
<td>John</td>
<td>Full Member</td>
<td>B.S., Kent State University, 1983; B.A., 1983; M.S., North Carolina State University, 1986; Ph.D., Cornell University, 1993.</td>
<td>Associate Professor, Biological Sciences</td>
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Hooks  Cerruti  Full Member  B.S., North Carolina Central University, 1987; M.S., North Carolina State University, 1994; Ph.D., University of Hawaii at Manoa, 2000  Associate Professor, Entomology

Messersmith  Donald  Full Member  B.Ed., University of Toledo, 1951; M.S., University of Michigan-Ann Arbor, 1953; Ph.D., Virginia Polytechnic Institute, 1962.

Kent  Bretton W  Full Member  B.S., Oregon State University, 1973; M.S., Oregon State University, 1976; Ph.D., University of Maryland, 1981.

Lecturer, Entomology

Mitter  Charles  Full Member  B.S., Stanford University, 1970; Ph.D., State University of New York-Stony Brook, 1977.

Labandeira  Conrad  Special Member  B.A., California State University Fresno, 1980; M.S., University of Wisconsin Milwaukee, 1986; Ph.D., University of Chicago, 1990.

Adjunct Professor, Entomology

Adjunct Professor, Biological Sciences

Neel  Maile  Full Member  B.A., Humboldt State University, 1985; M.S., University of California Santa Barbara, 1994; Ph.D., University of California Riverside, 2000

Lamp  William  Full Member  B.S., University of Nebraska-Lincoln, 1972; M.S., Ohio State University-Columbus, 1976; Ph.D., University of Nebraska-Lincoln, 1980.

Associate Professor, Entomology

Associate Professor, Biological Sciences

O'Brien  Tammatha  Full Member  Ph.D. in Entomology with an emphasis in Molecular Genetics, University of Maryland

O'Brochta  David A.  Full Member  B.S., University of Kansas, 1977; Ph.D., University of California-Irvine, 1985

Professor, Entomology

Ma  Michael  Full Member  B.S., University of Wisconsin-Madison, 1973; M.S., 1975; Ph.D., 1978.

Professor Emeritus, Entomology
Pal Utpal Full Member
B.S./M.S., University of Calcutta, India; Ph.D., University of Calcutta, India. Dr. Pal's research focuses on unraveling virulence mechanism of Lyme disease agents and Leptospira pathogens as well as better understanding of host-pathogen interaction and innate immunity involving arthropod vectors.

Raupp Michael Full Member
Professor, Veterinary Medical Sciences Affiliate Professor, Biological Sciences Associate Professor, Entomology

Schultz Ted Adjunct Member
B.A., University of California Berkeley, 1988; Ph.D., Cornell University, 1995.

Shapiro Leo Full Member
Lecturer, Entomology

Shofner Marcia Full Member
Lecturer, Entomology

Shrewsbury Paula Full Member
Associate Professor, Entomology

Palmer Margaret Full Member
B.S., Emory University, 1977; M.S., University of South Carolina-Columbia, 1979; Ph.D., 1983.

Professor, Entomology Professor, Marine, Estuarine, and Environmental Sciences Professor, Biological Sciences Affiliate Professor, Women's Studies Chair, Entomology Professor, Entomology Associate Professor, Biological Sciences

Shultz Jeffrey Full Member
B.S., University of Rhode Island, 1985; M.S., University of California-Riverside, 1991; Ph.D., University of Maryland-College Park, 1996. Associate Professor, Entomology

Pick Leslie Full Member
B.S., Wesleyan University, Middletown, CT, 1977 Ph.D., Albert Einstein College of Medicine, Bronx, NY, 1986

Thorne Barbara Full Member
<table>
<thead>
<tr>
<th>Name</th>
<th>Membership Level</th>
<th>Graduation Institutions and Dates</th>
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<tbody>
<tr>
<td>Via Sara</td>
<td>Full Member</td>
<td>B.A., Duke University, 1974; M.S., Australian National University-Canberra, 1976; Ph.D., Duke University, 1983.</td>
</tr>
<tr>
<td>Wang Jian</td>
<td>Full Member</td>
<td>B.S., Nanjing Agricultural University, 1984; M.S., Nanjing Agricultural University, 1988; Ph.D., Shanghai Institute of Entomology, Chinese Academy of Sciences, 1998.</td>
</tr>
<tr>
<td>Wu Louisa</td>
<td>Full Member</td>
<td>Ph.D., University of California, San Diego, 1995</td>
</tr>
<tr>
<td>vanEngelsdorf Dennis</td>
<td>Adjunct Member</td>
<td>B.S., University of Guelph, 1992; M.S., University of Guelph, 1995; Ph.D., The Pennsylvania State University, 2011.</td>
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