ENTOMOLOGY (ENT)

ENT 204 (s) Special Topics
Credit arranged.

ENT 299 (s) Directed Study
Credit arranged.

ENT 322 General and Applied Entomology
4 credits
Identification, biology, and importance of insects and related arthropods to humans and agriculture; basic principles of arthropod pest management. Three lec and one 3-hr lab a wk.

ENT 398 (s) Internship
1-6 credits, max 6
Graded P/F.
Prereq: ENT 322 or Permission.

ENT 400 (s) Seminar
Credit arranged.

ENT 404 (s) Special Topics
Credit arranged.

ENT 411 Veterinary & Medical Entomology
3 credits
Joint-listed with ENT 511
This course will explore why insects are such efficient disease vectors, how blood feeding evolved, the impact of insects and related arthropods and vector-borne diseases on humans and animals worldwide, and what is being done to combat the resurgence of many of these diseases. Offered in spring semester in odd years.
Prereq: BIOL 115 and EPPN 154 OR BIOL 250.

ENT 438 Pesticides in the Environment
3 credits
Gen Ed: Senior Experience
Cross-listed with PLSC 438 and SOIL 438
Principles of pesticide fate in soil, water, and air; pesticide metabolism in plants, pesticide toxicity, and pesticide mode-mechanism of action; pest resistance to pesticides; biotechnology in pest control; regulations and liability; equipment application technology; pesticide transport, storage, and disposal; and social and ethical considerations. Recommended Preparation: CHEM 275.

ENT 440 Insect Identification
4 credits
Joint-listed with ENT 540
Survey of approximately 200 major families; collecting and preservation techniques. For graduate credit, an additional 50 families and selected subfamilies and genera will be covered and a term paper is required. Two lectures and two 2-hr labs a week; two 1-day field trips. Cooperative: open to WSU degree-seeking students. (Alt/yrs)
Prereq: ENT 322 or Permission.

ENT 441 Insect Ecology
3 credits
Joint-listed with ENT 541
Population and community dynamics set in a systems framework; theory and applications in natural and altered systems. Requirements for graduate credit include a longer (10 vs. 5 pages), more synthetic term paper, and each 500-level student will lead a web-based or in-class discussion on a research paper of their choice. Two 1-day field trips. Recommended Preparation: General ecology. Cooperative: open to WSU degree-seeking students.
Prereq: ENT 322 or Permission.

ENT 469 Introduction to Forest Insects
2 credits
Roles and impacts of insects within forest ecosystems. Current management techniques of arthropod pests (insects and mites) in natural and managed forest systems. Interactions of arthropods with other agents of forest disturbance (fire and fungi). Identification of some common arthropod pests of Rocky Mountain forests.
Prereq: FOR 221 or REM 221.

ENT 476 Medical Parasitology
3 credits
Joint-listed with ENT 576
This course will explore the biology of eukaryotic parasites as they impact human health. Topics will include blood, gastrointestinal, and multi-organ parasites. The life cycles, clinical importance, global impact, and cutting edge research on these parasites will be reviewed. Offered in spring semester in even years.
Prereq: EPPN 154 OR BIOL 250 and BIOL 310 or BIOL 312.

ENT 481 Arthropod and Nematode Physiology
3 credits
Joint-listed with ENT 580
This course will compare and contrast fundamental physiological systems of insects, related arthropods, and nematodes, including those of medical, veterinary, agricultural, and ecological importance as well as those that have been established as critically important model organisms for biology. Course will be taught in the fall semester of odd years.
Prereq: BIOL 115 and EPPN 154 OR BIOL 250.

ENT 499 (s) Directed Study
Credit arranged.

ENT 500 Master's Research and Thesis
Credit arranged.

ENT 501 (s) Seminar
Credit arranged.

ENT 502 (s) Directed Study
Credit arranged.

ENT 504 (s) Special Topics
Credit arranged.

ENT 511 Veterinary & Medical Entomology
3 credits
Joint-listed with ENT 411
This course will explore why insects are such efficient disease vectors, how blood feeding evolved, the impact of insects and related arthropods and vector-borne diseases on humans and animals worldwide, and what is being done to combat the resurgence of many of these diseases. Offered in spring semester in odd years.
ENT 540 Insect Identification
4 credits
Joint-listed with ENT 440
Survey of approximately 200 major families; collecting and preservation techniques. For graduate credit, an additional 50 families and selected subfamilies and genera will be covered and a term paper is required. Two lectures and two 2-hr labs a week; two 1-day field trips. Cooperative: open to WSU degree-seeking students. (Alt/yr)

ENT 541 Advanced Insect Ecology
3 credits
Joint-listed with ENT 441
Population and community dynamics set in a systems framework; theory and applications in natural and altered systems. Requirements for graduate credit include a longer (10 vs. 5 pages), more synthetic term paper, and each 500-level student will lead a web-based or in-class discussion on a research paper of their choice. Two 1-day field trips. Recommended Preparation: General ecology. Cooperative: open to WSU degree-seeking students.
Prereq: ENT 322 or Permission.

ENT 549 Insect-Plant Interactions
3 credits
Ecology, evolution, and mechanisms of the interactions between insects and plants. Requirements for graduate credit include formal report of field study, term paper. Cooperative: open to WSU degree-seeking students. (Alt/yr)
Prereq: ENT 322.

ENT 569 Advanced Forest Entomology
3 credits
Methods and applications of biological and economic evaluation and control strategies of forest insect populations in relation to pest management programs. Recommended preparation: ENT 469. (Fall, alt/yr)

ENT 576 Medical Parasitology
3 credits
Joint-listed with ENT 476
This course will explore the biology of eukaryotic parasites as they impact human health. Topics will include blood, gastrointestinal, and multi-organ parasites. The life cycles, clinical importance, global impact, and cutting edge research on these parasites will be reviewed. Offered in spring semester in even years.

ENT 581 Arthropod and Nematode Physiology
3 credits
Joint-listed with ENT 481
This course will compare and contrast fundamental physiological systems of insects, related arthropods, and nematodes, including those of medical, veterinary, agricultural, and ecological importance as well as those that have been established as critically important model organisms for biology. Course will be taught in the fall semester of odd years.

ENT 597 (s) Practicum
Credit arranged.

ENT 598 (s) Internship
Credit arranged
Prereq: ENT 322 or Permission.

ENT 599 (s) Non-thesis Master's Research
Credit arranged
Research not directly related to a thesis or dissertation.
Prereq: Permission.

ENT 600 Doctoral Research and Dissertation
Credit arranged.