

# ENTOMOLOGY (ENT)

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## ENT 204 (s) Special Topics (1-16 credits)

Credit arranged

## ENT 299 (s) Directed Study (1-16 credits)

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 lectures and one 3-hour lab per week.

## ENT 398 (s) Internship (1-6 credits, max 6)

Graded P/F.

**Prereqs:** ENT 322 or Permission

## ENT 400 (s) Seminar (1-16 credits)

Credit arranged

## ENT 404 (s) Special Topics (1-16 credits)

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.

**Prereqs:** BIOL 115 and EPPN 154 OR BIOL 250

## ENT 438 Pesticides in the Environment (3 credits)

General Education: Senior Experience

Cross-listed with PLSC 438, SOIL 438

Principles of pesticide fate in soil, water, and air; pesticide metabolism in plants, pesticide toxicology, 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-hour labs per week; two 1-day field trips. Cooperative: open to WSU degree-seeking students. (Alt/years)

**Prereqs:** 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.

**Prereqs:** 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.

**Prereqs:** 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.

**Prereqs:** EPPN 154 OR BIOL 250 and BIOL 310 or BIOL 312

## ENT 499 (s) Directed Study (1-16 credits)

Credit arranged

## ENT 500 Master's Research and Thesis (1-16 credits)

Credit arranged

## ENT 501 (s) Seminar (1-16 credits)

Credit arranged

## ENT 502 (s) Directed Study (1-16 credits)

Credit arranged

## ENT 504 (s) Special Topics (1-16 credits)

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-hour labs per week; two 1-day field trips. Cooperative: open to WSU degree-seeking students. (Alt/years)

## 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.

**Prereqs:** 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/years)

**Prereqs:** 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/years)

**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. Spring, alt/even years.

**ENT 597 (s) Practicum (1-16 credits)**

Credit arranged

**ENT 598 (s) Internship (1-16 credits)**

Credit arranged

**Prereqs:** ENT 322 or Permission

**ENT 599 (s) Non-thesis Master's Research (1-16 credits)**

Credit arranged. Research not directly related to a thesis or dissertation.

**Prereqs:** Permission

**ENT 600 Doctoral Research and Dissertation (1-45 credits)**

Credit arranged