Entomology 511V
Special Topics – Applied Molecular Genetics

Credit Hours: 3
Semester: Fall 2002
Safari: 00445
Prerequisite: Introductory course in genetics

Discussion: TR 9:30 – 10:20
Location: AGRI 0315B
Lab: Two hours, time to be arranged
Location: AGRI 0301B

Course WWW site: http://comp.uark.edu/~aszalan/applied_molecular_genetics.html

Instructor:
Allen L. Szalanski
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Lab: 301B & 302 Agriculture Bldg
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Text:
Applied Molecular Genetics by R.L. Miesfeld
1999 Wiley-Liss, Inc.
ISBN 0-471-15676-0

Available at www.bn.com and
www.amazon.com

Course Description:
Principles of contemporary molecular genetic methods. Emphasis is on basic concepts, experimental design, and research strategies used in agricultural and biological research. This is a 3 credit discussion / laboratory course designed for students interested in obtaining a practical background in genetics. Students will learn how to apply advanced molecular genetic methodologies and Internet database resources to various research problems. During the course students are encouraged to apply the molecular methods learned to the organism that they are using for their research. Techniques to be covered include: DNA extraction; PCR; PCR-RFLP; and DNA sequencing. Applications will include: molecular diagnostics of pest organisms and pathogens; population genetics; molecular identification of insecticide resistance; and forensics.

Enrollment is limited to 8 students because of lab resources.