

# APPLIED SCIENCE ENGINEERING-DAVIS (EAD)

College of Engineering

## EAD 230 – Topics in Computational Fluid Dynamics (3 units)

*Course Description:* Hands-on approach to numerical methods for compressible fluid flow. Readings and discussions of solution strategies will be complemented with programming exercises and projects to give first-hand experience with performance and accuracy of several computational methods; from upwind differencing to Godunov methods.

*Prerequisite(s):* EAD 210A; EAD 210B; or consent of instructor.

*Learning Activities:* Lecture 3 hour(s).

*Grade Mode:* Letter.

## EAD 289A – Special Topics in Applied Science: Atomic, Molecular, & Optical Physics (1-5 units)

*Course Description:* Special topic in Atomic, Molecular, and Optical Physics.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

## EAD 289B – Special Topics in Applied Science: Chemical Physics (1-5 units)

*Course Description:* Special topic in Chemical Physics.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

## EAD 289C – Computational Physics: Computational Physics (1-5 units)

*Course Description:* Special topic in Computational Physics.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

## EAD 289D – Special Topics in Applied Science: Biophotonics/Biotechnology (1-5 units)

*Course Description:* Special topic in Biophotonics/Biotechnology.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

## EAD 289E – Special Topics in Applied Science: Materials Science (1-5 units)

*Course Description:* Special topic in Materials Science.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

## EAD 289F – Special Topics in Applied Science: Imaging Science & Photonics (1-5 units)

*Course Description:* Special topic in Imaging Science and Photonics.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

## EAD 289G – Special Topics in Applied Science: Nonlinear Optics (1-5 units)

*Course Description:* Special topic in Nonlinear Optics.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

## EAD 289H – Special Topics in Applied Science: Plasma/Fusion Energy Physics (1-5 units)

*Course Description:* Special topic in Plasma/Fusion Energy Physics.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

## EAD 289I – Special Topics in Applied Science: Quantum Electronics (1-5 units)

*Course Description:* Special topic in Quantum Electronics.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

## EAD 289J – Special Topics in Applied Science: Condensed Matter/Statistical Physics (1-5 units)

*Course Description:* Special topic in Condensed Matter/Statistical Physics.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

## EAD 289K – Special Topics in Applied Science: Classical Optics (1-5 units)

*Course Description:* Special topic in Classical Optics.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

## EAD 289L – Special Topics in Applied Science: Microwave & Millimeter-Wave Technology (1-5 units)

*Course Description:* Special topic in Microwave and Millimeter-Wave Technology.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

**EAD 289M – Special Topics in Applied Science:  
Synchrotron Radiation Science (1-5 units)**

*Course Description:* Special topic in Synchrotron Radiation Science.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

**EAD 289N – Special Topics in Applied Science: Space  
Physics (1-5 units)**

*Course Description:* Special topic in Space Physics.

*Prerequisite(s):* Graduate standing or consent of instructor.

*Learning Activities:* Variable.

*Repeat Credit:* May be repeated 5 unit(s) per segment when topic differs.

*Grade Mode:* Letter.

**EAD 290 – Seminar (1-2 units)**

*Course Description:* Seminar.

*Learning Activities:* Seminar 1-2 hour(s).

*Grade Mode:* Satisfactory/Unsatisfactory only.

**EAD 290C – Graduate Research Group Conference (1  
unit)**

*Course Description:* Graduate research group conference.

*Prerequisite(s):* Consent of instructor.

*Learning Activities:* Discussion 1 hour(s).

*Repeat Credit:* May be repeated.

*Grade Mode:* Satisfactory/Unsatisfactory only.

**EAD 298 – Group Study (1-5 units)**

*Course Description:* Group study.

*Learning Activities:* Lecture 3-15 hour(s).

*Grade Mode:* Satisfactory/Unsatisfactory only.

**EAD 299 – Research (1-12 units)**

*Course Description:* Research.

*Learning Activities:* Variable.

*Grade Mode:* Satisfactory/Unsatisfactory only.