**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.