

SCIENCE, MATH AND ENGINEERING SUBCOMMITTEE

REPORT

JANUARY, 2007

I. VITERBI SCHOOL OF ENGINEERING: **Biomedical Engineering**

Req. by David D'Argenio

A. **Add a New Course** Eff. Term: Fall 2007

BME 536 Ultrasonic Transducers (3, Fa).

Background and foundation covering the design, fabrication and testing of ultrasonic transducers and arrays. Design approaches, modeling tools will be discussed. Design project assigned.

➤ **APPROVED.** Course may be used as a technical elective for the MS and PhD in BME.

B. **Revise a Program** Eff. Term: Fall 2007

M. S., Medical Devices and Diagnostic Engineering

Change units required from 31 to 30; replace BME 620L (4 units) with BME 620 (3 units).

➤ **APPROVED.**

1. **Includes one Revised Course** Eff. Term: Fall 2007

NEW: BME-620 Applied Electrophysiology (3)

The theoretical basis and applied design principles for medical devices and instrumentation that interact with electrically excitable tissues of the body. Prerequisite BME 502.

OLD: BME-620L Applied Electrophysiology (4)

➤ **APPROVED.** Change unit value from 4 to 3; remove required Lab.

2. **Includes one New Course** Eff. Term: Fall 2007

BME-621L Applied Electrophysiology Laboratory (1)

Practical laboratory experiences to illustrate the theoretical basis and applied design principles for medical devices that interact with electrically excitable tissues of the body. Prerequisite BME 502; Corequisite BME 620.

➤ **APPROVED.**

II. VITERBI SCHOOL OF ENGINEERING: Computer Science

Req. by Gerard Medioni

Add a New Course

Eff. Term: Fall 2007

CSCI-531 Applied Cryptography (3)

Intensive overview of cryptography for practitioners, historical perspective on early systems, number theoretic foundations of modern day cryptosystems and basic cryptanalysis.

➤ **APPROVED.**

III. VITERBI SCHOOL OF ENGINEERING: Information Technology Program

Req. Ashish Soni

A. Revise a Course

Eff. Term: Fall 2007

NEW: ITP 220Lx Digital Video Editing and Motion Graphics (2, FaSp)

Techniques for digital, non-linear video editing and compositing. Special video effects, rendering and compression for multimedia, the Web, and broadcast. Recommended preparation: general PC-based computer proficiency. Not available for major credit for EE or CSCI majors.

OLD: ITP 220x Video Editing and Effects for Multimedia, the Web, and Broadcast (2, FaSp)

Revise course title, add required lab. The subcommittee co-chair provided some friendly suggestions about the syllabus to the proposing unit.

➤ **APPROVED.**

B. Add a New Course

Eff. Term: Fall 2007

ITP-486 Securing and Auditing Enterprise Resource Planning Systems (3 FaSp)

Management and technical issues related to the security of ERP systems. Students will audit ERP systems and apply appropriate security controls. Prerequisites: ITP 320, ISE 382. also

➤ **APPROVED**, with friendly suggestion that the prerequisites for the course be added to the syllabus. Affected department approval provided by ISE.