Minutes of the I.T. Curriculum Committee
December 4, 2006

Present: J. Carlis (CSCI), P. Drake (Honors), W. Durfee (ME), D. Frank (Math&Chair), P. Hudleston (ITSA), T.J. Jones (Astro), L. Kinney (ECE), William Kuduk(ITSB),A. Pineles (ITLD), S. Rudaz (Phys), T. Shield (AEM), D. Shores(CEMS), J. Stout (Geo), U. Tschirner (BBE)

1) Minutes of September 18, 2006 were APPROVED.
2) Actions on courses were taken; see chart below.

(shaded items for information only)
In red – comments from a previous meeting or provisional approval
CP = Catalog Prerequisite
EP = Enforced Prerequisite

Course	Title	Current	Proposed	Approved/ Comments
Ast 4101	Computational Methods in the Physical Sciences	Short Title: Computational Phys; Lect + Lab; CP: upper div CLA or upper div IT or grad or #; Equiv: none	Title: Computational Methods; Lect only; CP: upper div or grad or #; Equiv: Phys 5042	Approved. Delete "Equiv Phys 5042".
BP 5303	Introduction to Bio-Based Materials Science	Title: Bio-Based Materials Science	Title: Introduction to Bio-Based Materials Science Note: not one of courses in new BBE curriculum How does this differ from BP 4303?	Approved. Need statement "Project required" in description of 5303 and need to say "Equiv" with 4303..
BP 5401	Bioproducts Engineering	Title: Bio-based Products Engineering, 4 cr Unit operations of bio-based products engineering/manufacture. CP: ChEn 4001, CE 3502, [jr or sr or #] 4 contact hrs,	Title: Bioproducts Engineering, 3 cr Unit operations of bioproducts engineering/manufacture. CP: BP 3033, CE 3502, UD or # 3 contact hrs, How does this differ from BP 4401?	Approved. Need statement "Project required" in description of 5401 and need to say "Equiv" with 4401..

Course	Title	Current	Proposed	Approved/ Comments
BMEn 4001W	Biomedical Engineering Design I	EP: None	EP: BMEN upper div	Tabled
BMEn 4002W	Biomedical Engineering Design II	EP: None	EP: BMEN upper div	Tabled
CSci 2121	Introduction to the Internet 2	Active	Inactive Note: Taught only twice since start of semesters, no plan to offer again. Was a core course in the Information Technology minor.	Approved
Chem 4201	Materials Chemistry	Offered Fall and Spring	Offered Fall only	Info only
CSci 5302	Analysis of Numerical Algorithms	Additional topics in numerical analysis: interpolation, approximation, extrapolation, numerical integration/differentiation, numerical solutions of ordinary differential equations. CP: 2031 or #	Additional topics in numerical analysis: interpolation, approximation, extrapolation, numerical integration/ differentiation, numerical solutions of ordinary differential equations and introduction to optimization techniques. CP: CSci 2031 or # Note: Minor modification to description to accurately reflect course content.	Approved
CSci 5304	Computational Aspects of Matrix Theory	Perturbation theory for linear systems and eigenvalue problems. Direct and iterative solution of large linear systems. Decomposition methods. Computation of eigenvalues and eigenvectors. Singular value decomposition. LAPACK and other software packages. Methods for sparse and large structured matrices. CP: 5302 or #	Perturbation theory for linear systems and eigenvalue problems. Direct and iterative solution of large linear systems. Matrix factorizations. Computation of eigenvalues and eigenvectors. Singular value decomposition. LAPACK and other software packages. Introduction to sparse matrix methods. CP: CSci 2031 or # Note: Minor modification to description to accurately reflect course content. Dropped CSci 5302 as prereq & replaced with CSci 2031 per Y Saad	Approved
CSci 5512W	Artificial Intelligence II	Advanced topics in AI for solving complex problems. Machine learning (symbolic/neural networks approaches), genetic algorithms, reasoning with uncertainty, utility theory and decision theoretic methods, natural language processing, perception robotics, introduction to Prolog programming language. CP: 5511 or #	Uncertainty in artificial intelligence. Probability as a model of uncertainty, methods for reasoning and learning under uncertainty, utility theory and decision-theoretic methods. CP: Stat 3021 and CSci 4041 or #	Approved

Course	Title	Current	Proposed	Approved/ Comments
CSci 5519	Artificial Intelligence II (non-WI)	Advanced topics in AI for solving complex problems. Machine learning (symbolic and neural networks approaches), genetic algorithms, reasoning with uncertainty, utility theory and decision theoretic methods, natural language processing, perception robotics, introduction to Prolog programming language. CP: prereq 5511 or #	Uncertainty in artificial intelligence. Probability as a model of uncertainty, methods for reasoning and learning under uncertainty, utility theory and decision-theoretic methods. CP: Stat 3021 and CSci 4041 or # Offered Spring semester	Approved
CSci 5541	Natural Language Processing	CP: 5511 or # Offered even years only, spring	CP: CSci 4041 or # Offered odd years only, fall	Approved
CSci 5551	Introduction to Intelligent Robotic Systems	CP: 5511 or #	CP: 2031 or #	Approved
EE 3041	Industrial Assignment I		New Course: 2 cr; Indpt Study, Grade Base: A-F only, 13 cr Academic Progr Units Industrial work assignment in engineering co-op program. Evaluation based on student's formal written report covering the semester's work assignment. CP: EE or CompE upper div, enrolled in ECE Coop Program EP: EE or CompE major, upper division Equiv. ME 3041 No repeats: offered F,S,SS	Approved
EE 4043W	Industrial Assignment II		New Course: 4 cr; Indpt Study, Grade Base: A-F only, 13 cr Academic Progr Units Solution of system design problems that require developing criteria, evaluating alternatives, and generating a preliminary design. Final report emphasizes design communication and describes design decision process, analysis, and final recommendations. CP: EE 3041 EP: EE or CompE major, upper division Equiv. ME 3043W No repeats: offered F,S,SS	Approved

Course	Title	Current	Proposed	Approved/ Comments
EE 4044	Industrial Assignment III		New Course: 2 cr; Indpt Study, Grade Base: A-F only, 13 cr Academic Progr Units Industrial work assignment in engineering co-op program. Evaluation based on student's formal written report covering semester work assignment.. CP: EE 4043W EP: EE or CompE major, upper division Equiv. ME 4044 No repeats: offered F,S,SS	Approved
EE 5609	Digital Signal Integrity	Active	Inactive	Approved
Geo 5351	Geochemical Modeling of Aqueous Systems		New Course: 3 cr; Lect, Grade Base: Stdnt Opt, Using mass transfer reaction path models to assess chemical evolution of natural fluids, hydrothermal alteration processes, and formation of hydrothermal ore deposits. CP: Geo 4401 Offered Spring Even Years	Approved. Not a new course; change from 8xxx to 5xxx.
Math 1001	Excursions in Mathematics	3 cr, 4 contact hrs / week	4 cr, 5 contact hrs / week	Tabled again
Math 1031	College Algebra and Probability	3 cr, 4 contact hrs / week	4 cr, 5 contact hrs / week	Tabled again.
Math 1051	Precalculus I	3 cr, 4 contact hrs / week	4 cr, 5 contact hrs / week	Tabled again
Math 1151	Precalculus II	3 cr, 4 contact hrs / week	4 cr, 5 contact hrs / week	Tabled again.
Math 5447	Theoretical Neuroscience		New Course: 4 cr; Lect, Grade Base: Stdnt Opt, Nonlinear dynamical system models of neurons and neuronal networks. Computation by excitatory and inhibitory networks. Neural oscillations, adaptation, bursting, and synchrony. Memory systems. CP: 2243 or 2373 or 2574 3 contact hrs, Offered every fall	Tabled again.

Course	Title	Current	Proposed	Approved/ Comments
Phys 3201	Statistical and Thermal Physics		New Course: 3 cr, Grade Base: Stdnt Opt, Lect only Principles of thermodynamics and statistical mechanics. Selected applications such as kinetic theory, transport theory, phase transitions CP: 2601 Equiv: Phys 4201/5201 Ed Note: 3XXX level is more appropriate number, allowing students to enroll earlier in their undergrad career. The course is not intended for graduate students	Withdrawn
Phys 4201	Statistical and Thermal Physics	Active	Inactive Note: 4201 replaced by 3201 effective fall, 06	Withdrawn (so course stays active)
Phys 5041	Mathematical Methods for Physics	Title: Analytical and Numerical Methods of Physics I Survey of mathematical techniques, both analytic and numerical, needed for physics. Application to physical problems. CP: 2601 or grad student EP: None	Title: Mathematical Methods for Physics Survey of mathematical techniques needed in the analysis of physical problems, with an emphasis on analytical methods. CP: 2601 or grad student EP: Exclude fr or soph 5000 level courses	Tabled
Phys 5042	Mathematical Methods for Physics	Title: Analytical and Numerical Methods of Physics II Survey of mathematical techniques, both analytic and numerical, needed for physics. Application to physical problems. Lec (final) CP: 5041 or # Equiv: none	Title: Computational Methods in the Physical Sciences Survey of numerical and computational techniques, as applied to the solution of physical and astrophysical problems. Arranged lab. Lec (no final) CP: upper div or grad or # Equiv: Credit will not be granted if credit has been received for: Ast 4101; Note: Title changed to more accurately reflect content. Equivalencies changed to allow concurrent course w/Ast 4101.	Withdrawn