




UNIVERSITY OF KENTUCKY

TRANSMITTAL

DATE: March 18, 2003

TO: Angel Clark
Senate Council

FROM: Lissa Holland 
Graduate Council

Research and Graduate Studies

*The Graduate School
Patterson Office Tower
Lexington, KY 40506-0027
(859) 257-8142
Fax: (859) 323-1928
www.rgs.uky.edu/gsl*

The Graduate Council met on March 13, 2003, and approved the following:

COLLEGE OF ARTS & SCIENCES

Mathematics

COURSE CHANGE:

MA 515 – Mathematical Programming and Extensions (3 credits)

(Change in title, description)

Change to:

MA 515/STA 515 – Linear and Combinatorial Optimization (3 credits)

Mathematical and computational aspects of linear programming and combinatorial optimization. Linear optimization is introduced by presenting solution techniques (primal and dual simplex) and studying geometric properties and duality for linear systems of inequalities. Basics of combinatorial optimization, including trees, paths, flows, matchings, and matroids, and the corresponding algorithms are presented.

Prerequisites: A course in linear algebra or consent of instructor. (Same as STA 515)

APPLICATION FOR CHANGE IN EXISTING COURSE: MAJOR & MINOR

1 Submitted by College of Arts and Sciences Date August 19, 2002

Department/Division offering course Mathematics

Changes proposed:

(a) Present prefix & number MA 515 Proposed prefix & number MA 515

(b) Present Title Mathematical Programming and Extensions

New Title Linear and Combinatorial Optimization

(c) If course title is changed and exceeds 24 characters (Including spaces), include a sensible title (not to exceed 24 characters) for use on transcripts:

Lin & Comb Optimization

(d) Present credits: 3 Proposed credits: 3

(e) Current lecture: laboratory ratio No laboratory Proposed: No laboratory

(f) Effective Date of Change: (Semester & Year) Fall 2002

3. To be Cross-listed as: STA 515
Prefix and Number

Christine L. Wood
Signature: Department Chair

4. Proposed change in Bulletin description:

(a) Present description (including prerequisite(s)): See attached

(b) New description: See attached

(c) Prerequisite(s) for course as changed: A course in linear algebra or consent of instructor.

5. What has prompted this proposal?

A proposed change in emphasis of the prelim sequence from optimization to discrete mathematics.

6. If there are to be significant changes in the content or teaching objectives of this course, indicate changes: See attached.

7. What other departments could be affected by the proposed change? Statistics since the course is cross-listed.

8. Will changing this course change the degree requirements in one or more programs? Yes No
If yes, please attach an explanation of the change.*

9. Is this course currently included in the University Studies Program? Yes No
If yes, please attach correspondence indicating concurrence of the University Studies Committee.

10. If the course is a 100-200 level course, please submit evidence (e.g., correspondence) that the Community College System has been consulted.

*NOTE: Approval of this change will constitute approval of the program change unless other program modifications are proposed.