Course Change Request **Indiana University** South Bend Campus

Check Appropriate Boxes: Undergraduate credit [X] Graduate credit [ ] Professional credit [ ]

1. School/Division Liberal Arts and Sciences
2. Academic Subject Code MATH 3. Current Course Number M347 4. Current Credit Hours 3
5. Current Title Discrete Mathematical Models
6. Effective Semester/Year for changes listed below: Fall 2003 7. Instructor: Faculty

Type of Change Requested (Check appropriate boxes and indicate changes)

[ ] 8. Change course number to: _____ (must be cleared with University Enrollment Services)

[X] 9. Current course title: Discrete Mathematical Models
Change to: Discrete Mathematics
Recommended abbreviation (optional) _____
(Limited to 32 Characters including spaces)

[ ] 10. Current credit hours fixed at: _____ or variable from: _____ to _____
Change to credit hours fixed at: _____ or variable from: _____ to _____

[ ] 11. Current lecture contact hours fixed at: _____ or variable from: _____ to _____
Change to lecture contact hours fixed at: _____ or variable from: _____ to _____

[ ] 12. Current non-lecture contact hours fixed at: _____ or variable from: _____ to _____
Change to non-lecture contact hours fixed at: _____ or variable from: _____ to _____

[ ] 13. Is this course currently graded with S-F (only) grades? Yes _____ No _____
Change to S-F (only) grading? Yes _____ No _____

[X] 14. Does this course presently have variable title approval? Yes _____ No X
Is variable title approval being requested? Yes _____ No X

[ ] 15. Is this course being discontinued? For all campuses _____ or for this campus only _____

[X] 16. Current course description P: M118 or equivalent. Introduction to the development and use of discrete mathematical models in the social, life, and management sciences; emphasis on models involving Markov chains, game theory, graph theory, and evolutionary systems.

Change course description to (not to exceed 50 words) P: M212 or M216. Injective and surjective functions; inverse functions; composition; reflexive, symmetric, and transitive relations; equivalence relations; sets including complements, products, and power sets; cardinality; introductory logic including truth tables and quantification; elementary techniques of proof including induction and recursion; counting techniques; graphs and trees; discrete probability.

17. Justification for change See attached.
(Use additional paper if necessary)

18. Are the necessary reading materials currently available in the appropriate library? Yes

19. A copy of every new course proposal must be submitted to departments, schools, or divisions in which there may be overlap of this course with existing courses or areas of strong concern, with instructions that they send comments directly to the originating Curriculum Committee. Please append a list of departments, schools, or divisions thus consulted.

Submitted by: _____ Date 9/6/02
Department Chairman/Division Director

Approved by: _____ Date 11/22/02
Dean

_____ Date _____
Dean of Graduate School (when required)

_____ Date _____
Chancellor/Vice-President

Gretchen L. Anderson 2/13/03
chair Senate Curr. Comm.

_____ Date _____
University Enrollment Services

After School/Division approval, forward the last copy (without attachments) to University Enrollment Services for initial processing, and the remaining four copies and attachments to the Campus Chancellor or Vice-President.

UPS 725

University Enrollment Services Final—White; Chancellor/Vice-President—Blue; School/Division—Yellow; Department/Division—Pink; University Enrollment Services Advance—White

This course will address the needs for discrete mathematics now being mandated for certification for teaching of mathematics at the secondary school levels, and will also more than adequately address the need for discrete mathematics as outlined for computer science majors in the 2002 ACM guidelines.