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)  

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 ___  

☐ 14. Does this course presently have variable title approval?  Yes ___ No ___  
Is variable title approval being requested?  Yes ___ No ___  

☑ 15. Is this course being discontinued?  For all campuses ___ or for this campus only ___  

☐ 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:  
Department Chairman/Division Director  
Date 9/6/02  

Approved by:  
Dean  
Date 11/22/02  

Dean of Graduate School (when required)  
Date  
Chancellor/Vice-President  
Date  
University Enrollment Services  
Date  

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.  

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

UPS 725
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.