A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 2
Lab Hours/Week: 2
OJT Hours/Week: *.*
Prerequisites: None
Corequisites: None
MnTC Goals: None

This course introduces programming concepts using Microsoft's Visual Basic language. Visual Basic enables programmers to create full featured Windows applications with a minimum of effort. Course includes: form layout, event-driven Windows programming concepts, variables and data types, variable and control initialization, operators, objects and properties, control structures (procedures, if-else, for & while loops), arrays, user-define sub procedures and functions, parameter passing. No previous programming experience is required. (Prerequisite: Math0520 or instructor permission) (3 Credits: 2 lecture/1 lab)

B. COURSE EFFECTIVE DATES: 10/16/2001 - Present

C. OUTLINE OF MAJOR CONTENT AREAS
D. LEARNING OUTCOMES (General)
1. Use common menu bar functions
2. Use common tool bar functions
3. Use common toolbox functions
4. Use form window functions
5. Use common project window functions
6. Use common properties window functions
7. Create common display objects
8. Set common object properties
9. Use control size & location properties
10. Use control text & caption properties
11. Use font properties
12. Create simple event procedure code
13. Test Visual Basic programs
14. Save Visual Basic programs
15. Describe compiler concepts
16. Describe interpreter concepts
17. Describe variable type concepts
18. Choose appropriate variable types
19. Perform variable and control initialization
20. Perform text to numeric type conversion
21. Perform numeric output formatting
22. Perform numeric output formatting
23. Use arithmetic operators
24. Use string operators
25. Use comparison operators
26. Use logical operators
27. Evaluate operator precedence
28. Use common Visual Basic functions
29. Use comments
30. Use cut-paste functions
31. Use search-replace functions
32. Describe object methods
33. Use common object methods
34. Use picture box objects
35. Use label objects
36. Use text box objects
37. Use command button objects
38. Use check box objects
39. Use option button objects
40. Use scroll bar objects
41. Use if-else control structure
42. Create program procedures
43. Create multi-form projects
44. Use debug window
45. Use For-Next control structure
46. Use Do-While control structure
47. Use variable arrays
48. Use list box controls
49. Display professional attitude
50. Create user-defined sub procedure
51. Create user-defined function
52. Perform procedure/function parameter passing

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted