

Minnesota State College Southeast

NWAT 2671: Java Programming

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 is designed to teach the fundamentals of the Java programming language. Basic concepts and methods of object-orientated programming and object-orientated design will be examined. The student will use practical problems to implement application-building techniques that will include well-written and readable programs using a disciplined coding style; including documentation and indentation standards. (Prerequisites: NWAAT1642, NWAT1650) (3 credits: 2 lecture/1 lab)

B. COURSE EFFECTIVE DATES: 01/21/2005 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. Define programming languages
2. Use programming environment
3. Describe Java program structure
4. Select appropriate variable type
5. Use assignment statements
6. Distinguish character strings and arrays
7. Use appropriate include directives
8. Use define directive
9. Use gets () function
10. Use puts () function
11. Use math operators
12. Use multiple assignment statement
13. Use compound assignment statement
14. Describe automatic type conversions
15. Perform type casting
16. Use relational operators
17. Use if statement
18. Use if-else statement
19. Use logical operators
20. Use nested if-else statements
21. Use increment and decrement operators
22. Use size of operator
23. Use while loop
24. Use do-while loop
25. Use exit command
26. Use break command
27. Use for loop
28. Use nested loops
29. Use continue statement
30. Use switch statement
31. Use void functions
32. Choose appropriate variable scope
33. Pass variable parameters by value
34. Use static variables
35. Pass array parms by address
36. Use function return values
37. Use function prototypes
38. Use math functions
39. Declare arrays
40. Initialize arrays
41. Use arrays
42. Declare pointer variables
43. Use address-of operator
44. Use pointer dereference (value-of) operator

45. Use pointer arithmetic

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted