# KISHWAUKEE COLLEGE SYLLABUS CIS 252 A - REF. #5160 C++ in Windows 3 Credit Hours, Fall 2003

## I. COURSE DESCRIPTION

A course in Windows based programming using Visual C++. Programming concepts based on the Microsoft Foundation Class (MFC) library will be examined. Programming assignments will be completed outside class. Three hours lecture/discussion per week. Prerequisite: CIS 250 or instructor consent.

## II. MEETING TIME AND PLACE

| Lecture/Lab: | A374                   |         |
|--------------|------------------------|---------|
| Time:        | 6:30 - 9:15 P.M.       | Tuesday |
| Dates:       | 8/26/2003 - 12/18/2003 |         |

## III. INSTRUCTOR INFORMATION

| Instructor:        | David G. Klick  |  |
|--------------------|---|--|
| Office:            | A342, hours will be posted on office door and on the <u>CIS web si</u><br>(http://kishwaukeecollege.edu/divisions/ct/cis/facsched.html) |  |
| Email:             | klick@elnet.com   |  |
| Phone:             | 815/825-2086 x 232  |  |
| Dept<br>Secretary: | 815/825-2086 x 203 - leave a message  |  |

## IV. REQUIRED TEXT AND MATERIALS

- A. Introduction to MFC Programming with Visual C++, Richard M. Jones, Prentice Hall PTR, 2000
- B. Sams Teach Yourself Game Programming in 24 Hours, Michael Morrison, Sams Publishing, 2003
- C. Internet access

#### V. COURSE OBJECTIVES

The student will be able to:

- A. demonstrate use of basic non-GUI MFC classes
- B. discuss the difference between Win 32 API and Win MFC programs
- C. create Windows applications using the MFC libraries
- D. create Windows programs using the Win 32 API
- E. write code to handle events using MFC and the Win 32 API
- F. use Windows MFC controls in an application
- G. incorporate sound into Windows programs
- H. incorporate sound into Windows programs
- I. write code to respond to mouse input
- J. write code to respond to keyboard input (including asynchronous access)
- K. design and implement a complex Windows program
- L. demonstrate the ability to work within a group to complete a project

## VI. GRADING SYSTEM

| 8 programs @ 50 points each           | 400 points |
|---------------------------------------|------------|
| group participation @ 100 points each | 100 points |
| 2 final projects @ 100 points each    | 200 points |
| 1 midterm exam @ 100 points           | 100 points |
| 1 final exam @ 200 points             | 200 points |
|                                       |            |
|                                       |            |

Total

1000 points

#### VII. GRADING SCALE

A = 90 - 100% 900 points or more

B = 80 - 89.9% 800 - 899 points

C = 70 - 79.9% 700 - 799 points

D = 60 - 69.9% 600 - 699 points

F = below 60% less than 600 points

## VIII. COURSE PROCEDURES

- A. Students are expected to attend every class session on time and prepared. Students should bring the text, diskettes, paper and pen/pencil to every class.
- B. Students are expected to spend <u>time outside of class</u> completing assignments. Lab schedules are posted at each lab. Food and beverages are not permitted in the labs.
- C. A familiarity with computers and the Windows operating system is expected.
- D. Assignments are to be turned in on time. Assignments which are not turned in on time will not be accepted unless individual arrangements are made in advance with the instructor.
  Depending upon the individual assignment, you may be required to turn in a printout and/or a diskette.
- E. Cheating is wrong and can result in dire consequences. A student caught cheating is subject to any combination of the following consequences: a score of 0 for the work in question, a permanent lowering of grade in the course, a failing grade for the course, and/or referral to the Vice President of Student Services for further disciplinary action. If you can not complete an assignment, contact the instructor. Do NOT copy from another student. It is NOT permissible to work together and turn in the same work.

Assignments which are deemed suspicious will be referred to another instructor or IT professional. If that third party decides that there are improbable similarities and cheating is likely, then cheating will be assumed. Absolute proof of cheating is not required for the instructor to take action.

- F. Tests are to be taken at the day and time scheduled. Failure to take a test at the scheduled time may result in a grade of 0 for that test. In the case of an excusable absence or a genuine emergency, the instructor must be contacted as soon as possible, preferably before the scheduled test, to reschedule the makeup of that test in the Learning Skills Center on the day the student returns to campus.
- G. Students are expected to show respect toward other students and their work. Behavior inconsistent with this goal is NOT allowed in the classroom and is grounds for expulsion from the class.

#### IX. EMERGENCY PROCEDURES

Class cancellations due to inclement weather will be announced on local radio stations; CALL the college for automated school cancellation information; or you may also check the Kishwaukee College website at: <u>www.kishwaukeecollege.edu</u>. Class cancellations due to instructor absence will be posted on classroom door.

## X. COLLEGE WITHDRAWAL POLICY

A "W" will not be given as a final grade. The student is responsible for officially withdrawing from the class according to procedures described in the college catalog. Any student that does not officially withdraw from the class will receive a letter grade. Last date to withdraw is: November 26, 2003 (5:00 PM).

#### XI. INCOMPLETE GRADE POLICY

All course requirements must be completed by the end date for the course. If there are extenuating circumstances which merit granting a student more time to finish course requirements, an incomplete grade ("I") may be given. To receive an incomplete, an Incomplete Grade Contract Form must be completed and approved. If the requirements are not completed, the "I" may revert to an "F".

#### XII. GRADUATION REQUIREMENTS FOR TRANSFER DEGREE STUDENTS

There is one assessment requirement for graduates completing the Associate of Arts, Associate of Fine Arts, Associate of Engineering Science and/or the Associate of Science degrees. You are required to submit a Degree Portfolio. Exact portfolio dates can be found in the graduation requirements in the Kishwaukee College Portfolio Development Handout. Specific information will be provided after the application for graduations is processed.

#### XIII. ATTENDANCE POLICY

Class attendance is strongly encouraged. You are responsible for whatever was covered in class, whether you are there or not. If you must miss a class, it is your responsibility to contact the instructor and make arrangements for notes, handouts, or announcements that were missed. Although attendance is not counted toward the final grade, quizzes which are given during class time (and may not be made up) do count toward the final grade.

#### XIV. COPYRIGHT

As a Kishwaukee College Student, you may have copyright software made available to you by the college for course use. Please understand that copyright software made available to you by the college is for course use. Please understand that copyright law prohibits copying these materials. *Violation of copyright laws can lead to prosecution for a criminal offense*.

## **TENTATIVE WEEKLY SCHEDULE**

Please note that this schedule and the topics covered are likely to change. Changes will be announced in class. If you are not able to attend class, it is your responsibility to find out what was covered.

| Week       | 8/26 | Syllabus; overview of Windows programming approaches;                   | Syllabus                        |
|------------|------|---|---------------------------------|
| 1:         |      | non-GUI MFC classes   | Jones: Ch. 1                    |
| Week<br>2: | 9/2  | Using classes in C++; finite state machines; a simple Win32 application | Jones: Ch. 2<br>Morrison: Ch. 2 |

| Week<br>3:  | 9/9   | Collections; files; serialization; a simple game engine   | Jones: Ch. 3<br>Morrison: Ch. 3            |
|-------------|-------|---|--|
| Week<br>4:  | 9/16  | Win32 GUI programming; Win32 graphics   | Jones: Ch. 4,<br>App. A<br>Morrison: Ch. 4 |
| Week<br>5:  | 9/23  | Bitmap graphics; using device contexts  | Jones: Ch. 5<br>Morrison: Ch. 5            |
| Week<br>6:  | 9/30  | Mouse and keyboard support; status bars   | Jones: Ch. 6<br>Morrison: Ch. 6            |
| Week<br>7:  | 10/7  | Joystick support; designing a game; creating user-defined classes to support additional functionality | Jones: Ch. 6<br>Morrison: Ch. 7,<br>8      |
| Week<br>8:  | 10/14 | Catch-up on topics; review for midterm  |  |
| Week<br>9:  | 10/21 | Midterm Exam  |  |
| Week<br>10: | 10/28 | Animation basics; Windows controls  | Jones: Ch. 7<br>Morrison: Ch. 9            |
| Week<br>11: | 11/4  | Sprites; sprite management  | Morrison: Ch.<br>10, 11                    |
| Week<br>12: | 11/11 | Menus; dialogs  | Jones: Ch. 8                               |
| Week<br>13: | 11/18 | Developing a game using sprites; using sounds (.wav and MIDI)   | Morrison: Ch.<br>12-15                     |
| Week<br>14: | 11/25 | Using the AppWizard; menus, toolbars, and dialogs   | Jones: Ch. 9, 10                           |
| Week<br>15: | 12/2  | Drawing partial bitmaps; animating sprites; animating backgrounds                                     | Morrison: Ch.<br>16, 17                    |
| Week<br>16: | 12/9  | Document View architecture (if time permits)  | Jones: Ch. 14                              |
| Final:      | 12/16 | Final exam: 6:30 PM - 8:20 PM   |  |

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