



Application for Offering a Course Using a Distance Education Format

1. Course Prefix and Number: **CS 216**
Course Title: **Introduction to Software Engineering**

Course Description: Software engineering topics to include: life cycles, metrics, requirements specifications, design methodologies, validation and verification, testing, reliability and project planning. Students will study and practice use of object-oriented design techniques and software tools in a modern development environment. Implementation of large programming projects will be stressed.

Course Objectives/Competencies:

The students will reach mastery in programming in a modern object-oriented programming language. (Except in exceptional circumstances the same language used in CS 115, CS 215.) There will be a brief review and possibly extension of some of the more advanced topics from CS 215.

Emphasis will be on larger projects and tools used in management of large projects.

Students will become *proficient* in:

- designing, implementing and testing large projects
- managing separate compilation
- software reuse
- approaches to debugging including: incremental development of safe, consistent code; conditional reporting of program state; use of debuggers.

Students will become *familiar* with:

- the software life cycle and software economics
- methodology of software development for large projects
- approaches to validation and verification of large software systems

Examples of material or methods which might be included at the discretion of the faculty include: command shells, pattern matching languages and utilities, version control software, interaction of logical design and physical implementation, completing projects as a team, contributing to the completion of a project by building one module of the project, building static and dynamic libraries, design and analysis models other than object orientation, use of CASE (Computer Assisted Software Engineering) tools.

2. Effective date (semester and year): First Summer Session, 2004

3. Describe the type of distance learning delivery method to be used.

This course will be taught via the Internet.

4. Describe how the course will achieve, in new ways, the same learning outcomes as when the course is taught by traditional delivery methods.

This course will be taught as a web-based distance course, using an online course management system. Traditional features such as homework assignments and exams will be supplemented with online chats, threaded discussions, and web-based content delivery. Attendance at an orientation session and other "live" events may be required and will be listed in the course syllabus. Submission of assignments via email or a course management system drop box may also be required. If the course has a lab component, completion of lab assignments may require attendance onsite at LCC or other facilities.

5. Describe the availability of related services such as labs, library, research, and supplemental information.

Students have access to library research materials via the web, including Kentucky Virtual Library databases and other library databases. Students have access to traditional print research materials in local public libraries and via interlibrary loan.

6. For web courses: Describe how ADA compliance has been assessed to ensure accessibility of course content for students with disabilities.

The course will be screened for ADA compliance using the accessibility guidelines and/or tools at LCC's Wider World Web site. Screening will take place before the course is listed in the printed or online schedule of classes.

7. Describe how appropriate levels of faculty-student and student-student interaction will be achieved.

Students may interact with the instructor via e-mail, telephone, fax, and student-faculty threaded discussions. Students may interact with each other via e-mail, telephone, fax, threaded discussions and web-based chat. Participation in threaded discussions may be required.

8. Describe any technical requirements for remote sites (ITV, computer hardware/software, and special equipment).

Technical requirements for web server space and the course management system are met. Specific technical requirements for students accessing the Kentucky Virtual University may be found at their web site. If needed, requirements for completion of lab assignments will be listed in the course syllabus.

4/16/2004 REV

9. Within the department, who should be contacted for further information about the proposed course:

Name: James Kolasa

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Email: jkolasa@uky.edu

Signatures of Approval
for
Internal LCC Proposals

Program/Area:

Computer Information Systems

Program/Area Coordinator:

Thomas P. [Signature]

Date: 3/11/04

Division:

Behavioral Sciences and Information Systems Technologies

Division/Program Development Committee Chair:

Anthony Rorr

Date: 2/20/04

Division Chair:

Debra Holt

Date: 3/11/04

Academic Council for Lexington Community College Chair:

[Signature]

Date: 4-21-04

This form is applicable for proposals that do not have to be submitted to the UK Senate.
Examples include but are not limited to the following:

- Application for Removal from General Education List
- Application for Inclusion on General Education List
- Addition to, Change in, or Deletion from *Lexington Community College Credit for External Experiences Manual*
- Application for Offering a Course Using a Distance Education Format



ACADEMIC COUNCIL FOR LEXINGTON COMMUNITY COLLEGE

PROPOSAL CHECKLIST

Initial Date
[Handwritten initials and dates]

Faculty Member

- Prepares proposal
Obtains approval from program/area faculty and signature of program/area coordinator
Submits form to Academic Affairs and division Program Development Committee
Forwards proposal to appropriate KCTCS program development contact

[Handwritten initials and dates: 2/13/04, 2/20/04, 2/20/04]

Division Program Development Committee Chair

- Calls meeting of committee
Conducts vote on approval of proposal
Signs proposal form and forwards proposal to Division Chair if committee approves proposal, or sends proposal back to faculty member with suggestions if committee does not approve proposal

[Handwritten initials and dates: 2/20/04, 2/27/04, 3/10/04]

Division Chair

- Places proposal on division meeting agenda
Conducts vote on approval of proposal
Signs proposal form and forwards proposal to Academic Council Chair if division approves proposal, or sends proposal back to faculty member with suggestions if division does not approve proposal

Academic Council Chair

- Places proposal on Academic Council meeting agenda when required materials are received by deadline
Circulates proposal to College faculty
Assigns primary reviewer for proposal
Invites faculty member responsible for proposal to Academic Council meeting
Sends proposal to Academic Council members
Conducts vote on approval of proposal
Signs proposal form if approved
Forwards proposal to the UK Senate Council and UK Registrar if Academic Council approves proposal, or sends proposal back to faculty member with suggestions if Academic Council does not approve proposal

Notes:

- This checklist is applicable for all program and curriculum proposals.
After Academic Council approval, the faculty member submitting proposal is responsible for making any requested changes and submitting revised form to the Academic Council recording secretary within one week.
To ensure implementation for the following Summer session and Fall semester, proposals should be approved by Academic Council no later than the December meeting.
To ensure implementation for the following Spring semester, proposals should be approved by Academic Council no later than the May meeting.
Agenda items for Academic Council meetings are due by the 15th of the preceding month in order to be considered.
For more information, consult the Academic Council web page at http://www.uky.edu/LCC/PRES/AcademicCouncil/academicCouncil.html.