

# Summer Scholarship 2005

## Proposal

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### MISSION STATEMENT

The mission of this project is to design, develop and implement instructional materials that will promote computer literacy in the local Rochester community.

### STATEMENT OF NEED

For societies to remain competitive, educational institutions, government and business must collaborate in an effort to broaden the range and reach of education. Computer literacy is rapidly becoming a basic and necessary skill to harness the full benefits of an information society. We must create educational systems that are available to all individuals over the course of their lifetimes.

The European Computer Driving Licence Foundation (ECDL-F), a nonprofit organization under the European Union, has also identified the need to increase computer literacy in society. Accordingly, the ECDL-F has created the world's leading end-user computer skills certification program, the European Computer Driving Licence (ECDL).

Literacy Volunteers of Rochester (LVR), a local non-profit organization focused on teaching reading and writing skills to adults, has expressed interest in making a computer literacy curriculum part of their available programs offered to the local community. Adhering to the ECDL's syllabus will provide the standards and guidelines to design a computer literacy curriculum for LVR.

This project proposes to utilize technology to help address the rising need for basic computer literacy by developing a portion of the ECDL syllabus and using existing authoring tools to deliver and present instructional material to students at LVR.

### PROJECT NARRATIVE

This project will last for ten weeks (35 hours per week) and will consist of three phases: design, development and implementation.

The content for the computer literacy curriculum will be based on the outline provided in the ECDL syllabus. In particular, the first section of Module 7 in the ECDL syllabus, titled "Information and Communication", will be the basis for the project. This section was chosen for its practical applications to accessing and searching information on the Internet. By completing this section of the module, the student will (among other skills): understand common Internet terms/concepts such as WWW, HTTP, ISP, and hyperlink, understand what a Web Browser is and how to use it, understand what a search engine is and be able to use it to

locate information, enter a URL and navigate a web page, and be able to print information from a web page. A listing of all skills is presented in the ECDL syllabus (see attachment).

In the design phase, the project will require collaboration with LVR staff to prioritize the areas within the chosen ECDL section that will be developed, gather any additional requirements, and create and review a project plan. With time permitting, other sections of the syllabus may be included as well.

During the development phase, content will be translated into an effective and interactive presentation with the use of existing authoring tools. Special attention will be devoted to the usability and design of the planned interface so as to allow novice computer users to function effortlessly. The idea is to create a blended approach for delivering information to the students. This will mean that the material will still be explained and taught by an in-class instructor; however, portions of a class lesson may involve interacting with a step-by-step simulation that visually shows the student how to perform a task. A real life application of this would be, for example, the instructor lecturing on how to create a text file. The instructor would pause and allow students in front of their computers to test their knowledge by interacting with a software simulation. The simulation would guide the student through the steps of creating a text file while handling user errors such as clicking the wrong menu item. For this project, the software interface for such a simulation will be developed using existing authoring tools, which may include commercially available software as well Java, PHP, and MySQL. The project will focus on designing and developing an effective interface and presentation using these technologies.

Finally, in the implementation phase, training, installation, and project evaluation will take place as LVR's pilot computer literacy program is deployed. Training will involve demonstrating the completed software to the LVR staff and explaining how the software fits in with the ECDL syllabus. The developed software will be documented and provided with the training. Project evaluation will consist of written surveys that will be administered to various pilot users of different computer skill levels. This will provide feedback on how the software interface and method of delivering the material can be improved. This will prove valuable as future interns or computer literacy instructors may decide to change the curriculum or update the software interface.

In total, the deliverables of this project will include: a documented curriculum for Module 7, Section 1 of the ECDL syllabus, software which will present and guide the student through portions of the curriculum, and documentation of the software developed throughout the course of the project. Dr. Michael Yacci will serve as a mentor and valuable source of advice for the development of the project's instructional material. The completion of this project will provide a high quality method of delivering curriculum content while achieving the ultimate goal of raising I.T. awareness in our society.