

# SIMPLE LAB EXERCISES AND EXAMPLES IN C + + FOR THE INTRODUCTORY PROGRAMMING COURSE

## TUTORIAL PRESENTATION

*Sue Fitzgerald*  
*Rockhurst College*  
*fitzgerald@vax1.rockhurst.edu*

Many colleges and universities are in the process of changing the language used in the first programming course from Pascal or Modula II to C++. Such a change requires selection of new textbooks and development of new lab exercises and programming assignments. Those of us who are highly trained in the procedural paradigm of programming have spent many years perfecting our classroom presentations. It is tempting for us to literally translate old lecture materials and existing assignments from the procedural to the object-oriented paradigm. As a matter of fact, many of the introductory C++ texts take this approach. It has the advantage of providing us with some familiar ground to stand on as we retrain ourselves. Unfortunately, in the literal translation process we lose the power and simplicity of designing in the object-oriented paradigm and we confuse our students who do not have a long history with the procedural approach.

This tutorial will focus on examples of simple lab exercises and programming assignments which can be used to introduce students to programming in the object-oriented paradigm without requiring mastery of the procedural approach first. Examples which model real life objects will be used to emphasize that computer programs are usually written to represent real life problems and their solutions. At least one interdisciplinary example will be presented.