

## Project Description

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A Christian Computer Scientist and Christian Computer Science undergraduate education uses Scripture as the first principle for faith, learning, and vocation. Most students do not have ready access to literature supporting this position. These students are ill equipped to apply Scripture to contemporary challenges and need instruction on how to employ Scriptural first principles to the topics and disciplines of Computer Science (CS). To provide CS graduates a contemporary application of Scripture to CS, an advanced final year CS course would include research into an area of CS and require association to Scriptural first principles. Examples of broad topics that the student can select from include “Representation of Truth in the Computer,” “The Nature of Being and a Thinking Machine,” and “Fitting Reality into a Finite Machine.” The student would concentrate on a particular aspect of the broader topic and develop a scholarly research paper.

Challenges for a small private undergraduate Christian college to offer such a course include preparation of the student in prerequisite courses to successfully complete the course, access to scholarly resources for research, and sufficient reviewers of the completed paper. The Christian CS educator needs materials to prepare lessons reinforcing Scriptural first principles. The project product is CS curricula course outlines containing Scriptural first principles that support and contradict contemporary CS approaches in the realms of reality, representation, problem solving, decision making, design, quality, and ethics.

One approach is to begin by developing a description of the nature of CS as it relates to Creation and developing a prototype course outline for the introductory CS course (CSC 110 at Belhaven College). The course introduces the student to the field of CS in the areas of problem solving, computer organization, data storage, software development (coding), usability, and quality.

An alternative approach is to begin by developing a description of the nature of CS as it relates to Creation and developing a prototype of the capstone course for seniors. Issues relating to the preparation of students and availability of resources must be described and resolved. The resulting capstone course should have special designation indicating the special nature of the course on the student transcript.