New Course Development in Accelerator and Reactor Health Physics under
Duke University/North Carolina State University Health Physics Consortium

Executive Summary

The objectives are to: 1) develop new graduate health physics (HP) courses in accelerator and reactor HP in collaboration with North Carolina State University's (NCSU's) Department of Nuclear Engineering (NE), and 2) make these courses available to students in the Duke Medical Physics Graduate Program HP Track and NCSU NE under the "*Cooperative Registration Program"* between the two universities.

Duke University has a well-established Medical HP program with four major accelerator facilities: 1) Triangle Universities Nuclear Laboratory (TUNL); 2) Duke Free Electron Laser Laboratory (DFEL); 3) PET cyclotron; and 4) Radiation Oncology Linacs. NCSU offers a research nuclear reactor facility under the well-established Nuclear Engineering Program. Joint course offerings by Duke and NCSU under the Duke/NCSU Health Physics Consortium will provide unprecedented new opportunities to the graduate students at both universities.

In particular, the regional consortium in HP makes the program one of the most comprehensive HP programs in the world encompassing medical HP, accelerator HP, and reactor HP. This also involves taking advantages of strengths of two major universities in the country by sharing resources and facilities. A regional consortium in HP places Duke and NCSU in a unique place in the Nation, and the world, by meeting the need for the production of future health physicists in all three major HP disciplines – thus, encompassing a goal of the U.S. NRC Education Grant Program.

Principal Investigator: Terry T. Yoshuzumi, yoshi003@mc.duke.edu