Memo to: ECU Graduate Curriculum Committee

From: Dr. Richard L. Miller, Professor, Department of Geological Sciences

Re: Proposed New Graduate Course

Date: December 2, 2011

The faculty of the Department of Geological Sciences recently approved a new course GEOL7600, 7601 *Remote Sensing of Coastal Processes*. Please find attached a new course proposal package for your consideration. This new course will provide students with the skills and knowledge to acquire, process and analyze remotely sensed data to support research and decision and policy making for complex coastal issues.

During the conceptual formulation of this course I engaged in an email discussion with the Chair and faculty of the Geography Department. The conversation was initiated by sending a draft of the course proposal. During our discussion, we concluded that because the new course is proposed to be at the 7000 level and that the degree to which the general topics of remote sensing (e.g., fundamentals of the electromagnetic spectrum) will be addressed, the new course proposed will not duplicate their courses at the 300, 4000 and 6000 level but, will in fact be complementary. This will afford our students to take "introductory" courses in Geography and then take a more advanced research, project-oriented course should this request be granted.

Coastal environments are vital national and global assets that continue to experience significant pressure from human-induced and natural change. These pressures will without question continue to grow as coastal populations increase and the coasts are affected by various climate change scenarios including rising sea level and increased tropical storms. Hence, there is a critical need to train the next generation of scientists and decision makers to use the unique tools offered by remote sensing. This is particularly true now as remote sensing tools continue to make major technological advancements and become increasingly more a part of our everyday lives.

Thank you for your time and consideration.