

Course name:

Introduction to Fisheries Stock Assessment

Instructor:

Dr. Juan Luis Valero

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<http://www.capamresearch.org/>

Location: Scripps Institution of Oceanography, UC San Diego

Dates: December 9 to 13, 2013

Hours: 9:00 AM to 5:00 PM

Course Objective and Description

Introduce students to modern statistical models used in fisheries stock assessment and natural resource modeling, providing instruction, demonstration, and exercises in fishery stock assessment modeling. This five-day course is organized as a series of morning sessions that focus on theoretical concepts and afternoon work sessions. These work sessions will be completed in different software environments such as R, MS Excel and the Stock Synthesis (SS) Stock Assessment modeling package (ADMB). Topics covered during the course will include 1) Models and data, 2) Model fitting, 3) Alternative modeling approaches, 4) Statistical age-structured models, 5) Stock assessment concepts, 6) Introduction to SS.

Pre-requisites:

Some knowledge of MS Excel and R is preferable.

Recommended Readings:

Haddon, M. 2001. Modeling and Quantitative Methods in Fisheries, Chapman & Hall, 2001.

Hilborn, R. and C. J. Walters. 1992. Quantitative Fisheries Stock Assessment: Choice, Dynamics and Uncertainty. Chapman and Hall, New York.

Hilborn, R., M. Mangel. 1997. The Ecological Detective: Confronting Models with Data. Monographs in Population Biology 28, Princeton University Press, Princeton, New Jersey.

Quinn, T., R. Deriso. 1998. Quantitative Fish Dynamics. Oxford University Press.