



## B2. MARINE SPATIAL PLANNING (MSP) OF AQUACULTURE – ESTIMATION OF CARRYING CAPACITY

**Instructor:** Ioannis Karakassis, George Koumoundouros, Efthimia ntonopoulou

### Course outline-lectures

#### 1. Introduction

- Scope and definition of aquaculture
- World trends and the need to farm the sea
- Aquaculture and the marine environment

#### 2. Principles of aquaculture

- Organisms, systems, methods and resources
- Economics, management and sustainability

#### 3. Marine finfish aquaculture

- Life cycle and organization of production
- Methods, structures and raw materials
- Basal performance indices and mass balance models
- Risk sources for the marine environment

#### 4. Environmental interactions of aquaculture

- Effects on geochemical processes
- Effects on benthos,
- Effects on plankton,
- Effects on wild fish and fisheries
- Effects on seagrass meadows and other sensitive marine habitats
- Effects of other anthropogenic uses on aquaculture
- Epatial and temporal scales of environmental interactions

#### 5. Carrying capacity:

- General theoretical considerations for CC and aquaculture context.
- Types of “carrying capacity”
- Adaptation of production to the physical and ecological characteristics of the receiving environment.
- Environmental Quality Standards as a means for the regulation of aquaculture production

#### 6. Planning and site selection of Aquaculture in the coastal zone

- The concept and tools of Ecosystem Approach to Aquaculture (EAA)
- Allocated Zones for Aquaculture (AZA)
- Allowable Zone of Effect (AZE)





ERACOM

JOINT MASTER PROGRAM IN  
ENVIRONMENTAL RISK ASSESSMENT  
AND COASTAL MANAGEMENT

2

- Comparative analysis of existing regulatory schemes
- Design of monitoring programmes

---

ARISTOTLE UNIVERSITY OF THESSALONIKI, SCHOOL OF BIOLOGY ■ 541 24 THESSALONIKI,  
GREECE ■ [www.auth.gr](http://www.auth.gr), [www.bio.auth.gr](http://www.bio.auth.gr) ■ INFO: Tel. 0030-2310-998260, 0030-2310-  
998998 ■ FAX: 0030-2310-998252, E-MAIL: [info@bio.auth.gr](mailto:info@bio.auth.gr)

