

Mathematics and Modeling

Biomathematics 1: Modelling biological dynamics by ordinary differential equation

IDENTIFICATION

CODE : BS-3-S1-EC-COMATH1
ECTS : 2.5

HOURS

Lectures :	10.0 h
Seminars :	12.0 h
Laboratory :	7.0 h
Project :	0.0 h
Teacher-student contact :	29.0 h
Personal work :	33.0 h
Total :	62.0 h

ASSESSMENT METHOD

TEACHING AIDS

TEACHING LANGUAGE

English

CONTACT

M. PUJO-MENJOUET Laurent
laurent.pujo-menjouet@insa-lyon.fr

CONTENT

- Introduction to dynamic systems (1D and 2D)
- Applications in population dynamics: logistical, Gompertz and fishing models. Prey-predator model of Lotka-Volterra, competitive/mutualism models, SI and SIR models.
- TP with R software (deSolve, phaseR).