UNIVERSITÀ DEGLI STUDI DI TORINO

ID

VP15_DIP_MAT

Visiting Professor Program
Academic year 2019/2020

DEPARTMENT OF MATHEMATICS "GIUSEPPE PEANO"

TEACHING COMMITMENT: 16 hours

COURSE TITLE

Biomathematics (part 1)

TEACHING PERIOD

2nd term

SCIENTIFIC AREA

Numerical analysis

LANGUAGE USED TO TEACH

English

COURSE SUMMARY

The course reviews basic topics, to reinforce basic knowledge but develops also new concepts. Use of papers in the current literature allows the students to improve their reading abilities, also in a foreign language. The course is a first step in building advanced models in biological applications and in tackling research problems. The projects and lab activities stimulate the students' problem solving abilities. At the start of the course some historical facts on this discipline are related. The discrete models presented could be used at the high school level.

LEARNING OBJECTIVES

The student is supposed to further his knowledge, recognize the errors in the model formulation and to correct them. The discussion with the teacher and other students helps in achieving this goal, it is the main reason for which the final projects are given to small teams of students. The students must also consult the current literature in the field, which is a necessary step to start research and new situations.

OTHER ACTIVITIES BESIDES THE COURSE

Seminars for the interested doctoral students in the programs in Mathematics and Complex Systems could also be offered during the visit. Joint research with interested members of the Mathematics department would also be fostered.

VISITING PROFESSOR PROFILE

The successful candidate should have a solid research experience in biomathematics, he/she should be editor of at least two international journals in the field. He/she should have a record of fundings for his/her research, should have visited relevant research institutions outside the own country, be or have been involved in the Board of Societies involving biological mathematic, have been the main organizer of important international conferences and a record of scientific publications of high quality, in particular in the area of dynamical systems and their application in population theory. He/she should be a specialist in age-structured populations, time separation techniques and aggregation method for the reduction of the order of the system.

CONTACT PERSON AT THE DEPARTMENT

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