SAPIENZA
UNIVERSITÀ DI ROMA

European Doctoral School of Demography (EDSD) 2015-2016
Course curriculum for EDSD Mathematical Demography

1. ***General information***
   1. Name: Mathematical Demography
   2. Level: Doctoral level
   3. ECTS Credit points: 7.5

2. ***Course placement within the educational system***
   1. Subject: Demography
   2. This is a doctoral level course and is mandatory in the Master programme in Demography.
   3. The course is offered in English.

3. ***Learning outcomes***
   On a general level the student shall acquire practical knowledge of the important components of formal demography. Specifically students will be able to:
   - use infinitesimal, differential, integral, and matrix calculus in their future practice;
   - acquire an overview of usual formalization in demography.

4. ***Course content***
   The course covers various advanced topics in formal demography:
   - Mathematical Theory of Population Heterogeneity
   - Growth and Projection of Populations and Cohorts
   - Agent-based Modeling and Simulation
   - Stable Population, Nonstable Populations, Population Momentum

5. ***Teaching and assessment***
   The course is designed as a series of lectures and seminars. Grading is based on individual performance, via written assignments, oral presentation or group activities.

   The University views plagiarism very seriously, and will take disciplinary actions against students for any kind of attempted malpractice in examinations and assessments. Plagiarism is considered to be a very serious academic offence. The penalty that may be imposed for this, and other unfair practice in examinations or assessments, includes suspension from the University.

6. ***Grading scale***
   Grading on the programme is based upon the ECTS scale. This means that in order to pass a certain course or assignment a student has to get the mark A, B, C, D or E, where A is the highest possible mark. Students who fail an assignment will get the mark F. In very general terms, the different grades represent the following quality of work:

A	Excellent.	The achievement clearly distinguishes itself and is excellent with regards to theoretical depth, practical relevance, analytical ability and independent thought
B	Very good	Very good. The work shows a very good ability of theoretical depth, practical application, analytical skill and independent thought.
C	Good	The achievement lives up to expectations and is of a good standard when considering theoretical depth, practical relevance, analytical ability and independent thought.

D	Satisfactory	The result is satisfactory on most levels, but has some weaknesses with regards to the above mentioned aspects.
E	Sufficient	The performance satisfies the minimum requirements, but not more.
F	Fail	The result is not satisfactory enough.

7. *Prerequisites*

General prerequisites for the Master programme in Demography

8. *Literature*

See separate document.