COURSE TITLE: ReproducibiliTEA: Open Discussion about OPEN Science (Gianluca Esposito, 10 hours - 2 cfu)

PERIOD: 2nd Semester 2023-24

COURSE CONTENTS, OBJECTIVES AND LEARNING OUTCOMES

Description of activity and topics:
The course will consist of the Trento Chapter of the ReproducibiliTEA (https://reproducibilitea.org/), which is grassroots journal club initiative that helps researchers create local Open Science journal clubs at their universities to discuss diverse issues, papers and ideas about improving science, reproducibility and the Open Science movement. Started in early 2018 at the University of Oxford, ReproducibiliTea has now spread to 139 institutions in 27 different countries. We are completely volunteer run, and provide a unique and supportive community for our members, who are predominantly Early Career Researchers.
The course will focus on the following topics: reproducibility crisis, replication, open science, data sharing, pre-registration, p-hacking, questionable research practices.

Specific learning objectives (i.e. specific knowledge and skills that the participants in the activity will acquire):
The aim of this class is to get the student familiar with ideas, theories and methods, with a multidisciplinary approach, in the context of Open Science. Main topics of the course are: the background of the replication crisis, factors influencing reproducibility and practices and initiatives promoting open science.
At the end of this experience, students will be able to:
A.   explain what the replication crisis entails and factors precipitating the replication crisis
B.   discriminate strength and reliability of results from reproducibility;
C.   apply and strengthen their critical thinking, specifically how to design and implement open science practices in their own studies, thanks to hands-on sessions.

DUBLIN DESCRIPTORS (Indicate the learning objective(s) that the activity aims to achieve, exercise and/or consolidate)

☒ systematic understanding of a field of study and mastery of the skills and methods of research associated with that field;

☒ ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity;

☒ ability to make a contribution through original research that extends the frontier of knowledge by developing a substantial body of work, some of which merits national or international refereed publication;

☒ ability to critically analyse, evaluate and synthesise new and complex ideas;

☒ ability to communicate with their peers, the larger scholarly community and with society in general about their areas of expertise;

☒ ability to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society;

ENTRANCE REQUIREMENTS (Indicate any specific knowledge and/or skills that the student must have in order to participate in the activity)

TEACHING AND LEARNING METHODS AND ACTIVITIES

The course will have weekly sessions of group discussion, during which participants will discuss a specific article, chosen from the article list. For each session two participants will lead the first summarize the article main points and then will moderate the discussion. Two students will be in charge of updating the OSF of the Italian ReproducibiliTEA page and a blog page. Each student will have to contribute to the blog with a 500 words entry.

ASSESSMENT OF THE ACHIEVEMENT OF LEARNING OBJECTIVES (Possibily an activity carried out independently by the student functional to his/her research activity)
Assessment will be based on class participation.

BIBLIOGRAPHY /STUDY MATERIALS (video-lessons, etc.) (Specificare se il materiale va letto, visionato, etc. prima degli incontri)
https://reproducibilitea.org/getting-started/