Scientific and technological journalism

Academic Year: (2022 / 2023) **Review date: 17-10-2022**

Department assigned to the subject: Communication and Media Studies Department

Coordinating teacher: CATALAN MATAMOROS, DANIEL JESUS

Type: Compulsory ECTS Credits : 6.0

Year : 5 Semester : 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

News reporting
Interpretative Journalism
Interpretative and investigative reporting
This course is included in the European Chair Jean Monnet "EU, Disinformation and Fake News"
https://www.uc3m.es/investigacion/catedras-investigacion/jean-monnet-chair-eu-disinformation-fake-news

OBJECTIVES

One of the major problems of modern society is that scientific and technological production is increasing exponentially and, nonetheless, people are more and more removed from knowledge of these advances because we do not have the ability to take them in with the speed with which they occur. One way to reduce this difference is to publish this information in the media. That is precisely why the aim of this course is to provide students with the basic tools necessary to handle scientific and technological news. The programme not only includes aspects of journalistic writing, but it also aims to place the subject within a context of science, technology and society. Most scientific information reaches the public via television. Thus, the course, in addition to the written media, reinforces content in an audiovisual framework, interactive technology or scientific photography.

DESCRIPTION OF CONTENTS: PROGRAMME

Topic I: Science as something with journalistic interest
Topic II: Sources in scientific journalism
Topic III: Scientific academic journals as sources
Topic IV: Scientific journalism in the Internet
Topic V: Writing skills in scientific journalism
Topic VI: Journalistic genres applied to scientific information
Topic VII: Science news published in different media options: press, webs, television and radio.
Topic VIII: Digital tools for science journalists
Topic IX: Health journalism
Topic X: The profession as a scientific journalist

LEARNING ACTIVITIES AND METHODOLOGY

Students must write scientific news using all the journalistic genres: report, interview, chronicle, bibliographic summary, news, etc. There will also be comparative analysis of the science sections of different newspapers.
SEMINAR:
The students must follow seminars on scientific topics which tend to be newsworthy and which generally correspond to the book "Science through Journalism", mentioned in the bibliography. These transversal topics might be included, among others:
- Space and the Solar System. Concepts. The International Space Station and the missions to Mars.
- The Earth: its formation and the tectonic plates. Volcanism and earthquakes
- Life: concepts on the appearance of life on Earth, embryonic stem cells. Cloning.
- Ecology and environment. The greenhouse effect, disappearance of the ozone layer and climate change.
- Diet: Food crises. "Mad Cow" Disease, information about rapeseed oil, etc.
- Matter and energy: Nuclear fusion and fission. The ITER project. Oil: information about oil spills.
- Scientific policy. National R+D plans, Spanish research in the CSIC and universities. Brief introduction to the history of Spanish science.

- Pandemis and health crises.

ASSESSMENT SYSTEM

Students must attend 80% of the practice and deliver them on time. The practice mark will count 50% of the final grade as long as the theoretical part is approved, which will count the remaining 50%.

The evaluation of the practice will be carried out through the continuous evaluation process in which the students will follow various activities guided by the lecturer. The evaluation of the theoretical content will be carried out through the participation of students during classes in the activities that will be presented by the lecturer, as well as online tests and questionnaires that will be carried out throughout the course.

% end-of-term-examination:	50
% of continuous assessment (assigments, laboratory, practicals…):	50

BASIC BIBLIOGRAPHY

- BAUER, MARTIN Y BUCCHI, MASSIMIANO (eds). Journalism, Science and Society. , Routledge. New York/London. , 2007
- BUCCHI, MASSIMIANO Y BRIAN TRENCH (eds.). Handbook of Science Communication, Routledge. London & New York., 2008
- Catalan-Matamoros, D., & Elías-Pérez, C. Vaccine hesitancy in the age of coronavirus and fake news: Analysis of journalistic sources in the Spanish quality press. , International Journal of Environmental Research and Public Health, 2020
- Catalán Matamoros, D. The Role of Mass Media Communication in Public Health, IntechOpen, 2011
- ELIAS, CARLOS La ciencia a través del periodismo, Nivola, 2003
- ELIAS, CARLOS Fundamentos de periodismo científico y divulgación mediática., Alianza Editorial. Madrid, 2008
- ELIAS, CARLOS El selfie de Galileo. Sofware social, político e intelectual del siglo XXI, Península-Planeta. Barcelona, 2015
- ELIAS, CARLOS Big data y periodismo en la sociedad red, Síntesis. Madrid, 2015
- ELIAS, CARLOS Science on the Ropes: Decline of Scientific Culture in the Era of Fake News, Springer, 2019
- GREGORY, JANE y MILLER, STEVE Science in public. Communication, Culture and credibility, Basic Book. London, 1998
- HORGAN, JOHN. El fin de la ciencia. , Paidós. Barcelona., 1998
- Nguyen, A., & Catalan-Matamoros, D. Digital Mis/Disinformation and Public Engagment with Health and Science Controversies: Fresh Perspectives from Covid-19., Media and Communication, 2020
- SOKAL, ALAIN y BRICMOUNT JEAN. Imposturas intelectuales. ., Paidós. Barcelona, 1999
- WEINGART, PETER and HUPPAUF, BERND Science Images and Popular Images of the Sciences, Routledge, 2007

ADDITIONAL BIBLIOGRAPHY

- BUCCHI, MASSIMIANO. Beyond Technocracy. Citizens, Politics, Technoscience, , Springer, New York , 2009
- CAMACHO MARKINA, IDOIA (coord) La especialización en periodismo. Formarse para informar. , Comunicación Social. , 2010
- ELÍAS, CARLOS La razón estrangulada. La crisis de la ciencia en la sociedad contemporánea, Debate-Penguin Random-House, 2008, 2014, 2015
- JASSANOFF, SHEILA. The fifth Branch: Science advisers as policy makers. , Harvard University Press. Massachussets, 1990
- KALANTZIS-COPE, PHILLIPS Y GHERAB-MARTIN, KARIM Emerging digital spaces in contemporary society. Properties of technology, Pagrave macmillan. New York, 2011
- LEON, BIENVENIDO (coord) Ciencia para la televisión.El documetnal científico y sus claves, UOC. Barcelona, 2010
- REVUELTA, GEMA (coord) Dilemas y acuerdo éticos en la comunicación médica, Civitas Thomson Reuters, 2010

BASIC ELECTRONIC RESOURCES

- Agencia Espacial Europea (ESA) . web de la ESA: http://www.esa.int/ESA
- Alphagalileo . web de AlfaGalileo: http://www.alphagalileo.es/
- EUREKALERT . web de la AAAS: http://www.eurekalert.org/
- Instituto de Astrofísica de Canarias . IAC: http://www.iac.es/

- NASA . web de la NASA: http://www.nasa.gov/

- Nature . web de Nature: http://www.nature.com/

- Science . web de Science: http://www.sciencemag.org/

- World Health Organization . Risk communication resources: https://www.who.int/ihr/publications/risk_communications/en/