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Geopolitics and technological changes: the future today

PROF. ALESSANDRO QUARENghi

Overview

Area: International Relations

Dates: July 11 - 22

Course number: IR/PO320su

Campus: Milan

Term: Summer 2022

Credits: 6 ECTS

Course description

The so-called 'Fourth Industrial Revolution', a series of innovation that has already started to shape our lives, is predicted to transform production and, more generally, our societies in the next few years. The course aims to provide students with tools to understand and manage risks and opportunities resulting from such technological change in the global context. To do so, it provides an understanding of the global contemporary context and its contemporary process of change; it explains the concept of the geopolitical code, providing examples of application; it illustrates the nature of political risks before focusing on innovation, competitiveness, and technology management.

Upon successful completion of the course, students will

- be familiar, both from a theoretical and empirical perspective, with the features of the main models of the international system, its current structure and its contemporary process of change, and the main challenges characterizing it;
- be able to analyse political risks to a different range of organizations (States, companies, NGOs);
- be able to identify and outline processes to manage innovation and technological change in a simulated professional environment by connecting global, regional, and local variables that influence or define the issue.

Course content

The course is divided into two main parts. In its first part the course focuses on politics: it begins with an overview of the features of the international system while outlining perspectives on how to understand international politics, before focusing on geopolitics and tools, such as the geopolitical code, that allow any organization to map its geopolitical standing and political risks to be aware of. In the second part, the course focuses on technology management: after illustrating the relationship between the international system and technological change, it focuses on the relationship between innovation and competitiveness. Finally, it deals with contemporary global technological changes (for example: AI, industry 4.0, 3D printing, etc.) and the transformation they are likely to create, and the process of technology management.

Methods of teaching

The course will combine lectures, analysis of case studies, and debates. Students will have to research some case studies during the course, according to the instructor's guidelines provided at the beginning of the course. Finally, students, working in small groups, will have to research and orally present (15-20 minutes) issues and/or case studies provided by the instructor and according to his instructions.



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Course requirements

- a) Students are expected to actively take part in debate;
- b) Before each class, students are expected to have read the compulsory readings (and are strongly advised to read the recommended readings);
- c) Students are expected to research some case studies according to the instructor's guidelines;
- d) Students, in groups, are required to research and orally present one of the case studies provided by the instructor;
- e) Students will have to take a final written exam.

Grading

Class participation	20%
Case studies	25%
Group Presentation	25%
Final written exam	30%

Course reading and materials

Main readings:

Bremmer I., Preston K., *The Fat Tail: The Power of Political Knowledge in an Uncertain World* (OUP, 2009)

Flint C., *Introduction to geopolitics* (Routledge, 2016)

Miles I., Saritas O., and Sokolov A., *Foresight for Science, Technology, and Innovation* (Springer, 2016)

Said E., *Covering Islam: How the Media and the Experts Determine How We See the Rest* (Vintage Books, 1997)

A more complete and detailed reading list will be provided at the beginning of the course.

Rules of conduct

Exam Date: The exam date cannot be rescheduled. Unexcused absences will result in a failing grade. In cases of unforeseeable circumstances such as illness or injury on the day of the exam, the student must submit a medical certificate and communicate his/her absence to the Professor and UCSC International Office via email prior to the exam. If the student does not justify his/her absence through sufficient documentation and with adequate notice before the final test, the student will receive an automatic Fail.



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Schedule

FIRST WEEK. GEOPOLITICS, THE INTERNATIONAL SYSTEM, AND RISKS

Lesson 1: INTRODUCTION

Presentation of the course: aims, organization, class-by-class overview. Assignments: suggestions on how to successfully complete the course

- What is Power? Main concepts (Dahl's, Bachrach and Baratz's, Luke's, and Foucault's concepts)
- Introduction to Geopolitics and International politics: essential elements
- International Relations Theory: Brief review of 'schools' of and 'approaches' to International Politics

Lesson 2: THE INTERNATIONAL SYSTEM

- The historical structural evolution of the international system and its modelling: multipolarity, bipolarity, hegemony
- The contemporary global international system and its interpretation: unipolarity, end of history, clash of civilizations, empire, globalization, the liberal order
- Contemporary change and ideas about the future international system

Lesson 3: CONTEMPORARY GLOBAL CHALLENGES

- Introduction to contemporary global challenges
- International and regional impact of the global challenges
- Analysis of challenges

Lesson 4: THE GEOPOLITICAL CODEX

- Theoretical concept
- Questions and principles of geopolitical codex
- The geopolitical codex of States, companies, and NGOs

Lesson 5: POLITICAL RISKS

- Introduction to political risks
- Political risk analysis



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- Types of risks (political, economic, social): domestic instability, terrorism, the environment, expropriation, regulatory risks

SECOND WEEK. THE INTERNATIONAL SYSTEM, GEOPOLITICS, AND TECHNOLOGY

Lesson 6: THE INTERNATIONAL SYSTEM AND INNOVATION

- Technological change and the international system
- Innovation: main concepts and perspectives
- Type of innovation
- Innovation and competitiveness

Lesson 7: COUNTRY COMPETITIVENESS

- Issues influencing country competitiveness
- The IMD World Competitiveness Yearbook
- The World Economic Forum's Global Competitiveness Report
- Case studies: Italy, Mexico, Germany, Australia

Lesson 8: CONTEMPORARY TECHNOLOGICAL CHANGE AND INNOVATION

- Global technological change and its global impact.
- Cases: AI, industry 4.0, 3D printing, smart cities, digitalization.

Lesson 9: TECHNOLOGY MANAGEMENT

- Overview: technology forecasting, strategy, roadmap, evaluation.
- Competitive and technology intelligence.
- Examples of application.

FINAL EXAM

Instructors' biographies

Alessandro Quarenghi is a Lecturer in International Politics at the Università Cattolica del Sacro Cuore, where he teaches International Relations, Economic Geography, and International Relations of the Middle East. He holds a degree in Law, a PhD in International Relations, a Specialization in International Economics and Politics, and Master's Degrees in Postcolonial Politics and Cross-cultural Mediation. His work focuses on international order and international relations, politics of the Middle East, and technological change and the international system.



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