1. Management and Business Economics
   **Neptun code:** BMEGT20A001
   **Credit:** 4 credits
   **Responsible Department:** Department of Management and Corporate Economics, Department of Finance
   **Semester:** autumn/spring

   The course is designed for engineering students who would like to have a better conceptual understanding of the role of management in the decision making process. The course introduces the essentials of management as they are applied within the contemporary work environment. Particular attention is paid to management theories, corporate finance, motivation, leadership, teamwork, change management, quality management, management of technology, economic calculation and operations management. For problem formulation both managerial interpretation and mathematical techniques are applied.

2. Quality Management
   **Neptun code:** BMEGT20M002
   **Credit:** 2 credits
   **Responsible department:** Department of Management and Corporate Economics
   **Semester:** Spring semester only!

   The primary goal is to get the students acquainted with the current issues and methods of quality improvement. Students are given an overall picture of quality philosophies applied in both productive and non-productive industries, the basics of quality management related standards and total quality management including self-assessment models and of the various soft and hard methods of quality management.

3. Management
   **Neptun code:** BMEGT20MW02
   **Credit:** 5 credits
   **Responsible Department:** Department of Management and Corporate Economics
   **Semester:** Fall semester only!

   The course introduces the field of the life in workplaces. It covers a wide range of theories and applications dealing with such topics as motivation, team dynamics, leadership, organizational culture, and different HRM activities, like recruitment and selection, performance appraisal and training. The goal of this course is to help students develop a conceptual understanding of theories in organizational life (Organizational Behaviour) and to provide special set of skills to
manage human resources (Human Resource Management), not only for those who are in managerial positions, but for future engineers and other professionals.

4. Marketing
Neptun code: BMEGT20A048
Credit: 5 credits
Responsible Department: Department of Management and Corporate Economics
Semester: Fall semester only!
Learning outcomes: After the course the students understand the role of marketing in an organization. Students get familiar with the marketing tasks, tools and strategies. Through the practical work the student is able to elaborate certain marketing topic using the knowledge acquired on lectures.

5. Micro- and Macroeconomics
Neptun code: BMEGT30A001
Credit: 4 credits
Responsible Department: Department of Economics
Semester: autumn/spring

6. History of Economic Thought
Neptun code: BMEGT30N001
Credit: 2 credits
Responsible Department: Department of Economics
Semester: Spring semester only!
The subject’s main goal is to introduce into the evolution of economic thought. Beginning with the ideas of ancient Greek philosophers about economic and social life and following with Thomas Aquinas’ scholasticism, the course turns to theories and practice in the sense of
mercantilism. The study of pre-classical Scotch philosophers will be the basis for understanding liberalism and the classical supply side economics in the 18th century. Development of technology had implied that the demand-side became the bottle-neck and thus the foundation of modern micro- and macroeconomics. The process of time-development of theories will be combined with the analysis of the concrete conditions for production, distribution and consumption in different periods.

7. Accounting
Neptun code: BMEGT35A002
Credit: 2 credits
Responsible Department: Department of Finance
Semester: Fall semester only!

Students of the course receive managerial and other practice oriented knowledge concerning the financial and profitability status of companies, learn about the methodology, procedure and settlement of financial transactions. The purpose is to provide the students with a confidential knowledge in the field, to guide them in the language of business, to present a financial concept and to supply the students with an asset necessary for international communication based on accounting cognition.

8. Finance
Neptun code: BMEGT35A001
Credit: 2 credits
Responsible Department: Department of Finance
Semester: Spring semester only!


9. Economic Policy
Neptun code: BMEGT35A003
Credit: 2 credits
Responsible Department: Department of Finance
Semester: Fall semester only!

The objective of the course is to introduce the students to fundamentals of business–government relations in the environment of modern market economy. Basic theories, schools and ideologies of economic policy as well as their main institutions and institutional participants are discussed. The theory and practice of economic intervention of the government are illustrated by means of cross-sectional analysis for various states and with respect to the specific issues for stabilization
their economic policies. Special attention is devoted to economic policy processes of Eastern European countries and to the investigation of dilemmas related to Hungarian economic policy.

10. Investments

**Neptun code:** BMEGT35M004  
**Credit:** 2 credits  
**Responsible Department:** Department of Finance  
**Semester:** Fall semester only!

The main topic of this course is fixed income valuation, with a special emphasis on US mortgage backed securities. First, we briefly review the fundamentals of modern portfolio theory, starting from Markowitz’s original model to the foundations of modern multi-factor models. We analyze the Capital Asset Pricing Model, define risk, introduce risk measures and talk about the risk free rate and risk premium. Later, we turn our attention to fixed income instruments. We classify the instruments, and review the most frequent cash-flow structures, then talk about valuation. We define duration and convexity, and the basics of building an index replicating bond portfolio. We go into more details in US agency (prime) mortgage backed pass-through and structured securities. Using MS Excel to model prepayment behaviour, we simulate future interest rates, generate cash-flows of complex structured products and finally use Monte Carlo simulation to calculate modelled price. We define and calculate option adjusted spreads. The second part of the course is quite technical. While not a prereq, some background in probability theory, Monte Carlo simulation, interest rate models, and general mathematics is definitely an advantage.

11. Research Methodology

**Neptun code:** BMEGT41A002  
**Credit:** 2 credits  
**Responsible Department:** Department of Philosophy and History of Science  
**Semester:** Fall semester only!

The course aims at helping the students to create a conscious attitude towards the methodological tools and abstract notions of their own subject. We are going to examine the chief characteristics of scientific activity as well as the primary methodological norms of research. We will study the basic notions of scientific knowledge (what do we understand by knowledge, causal relationship, law of nature, what basic understandings of space and time can be identified), and we will also observe the different phases of scientific cognition (experience, making hypotheses and theories). We are going to examine the role mathematics plays in the sciences. Among the scientific methods we will treat separately the followings: experimenting, measuring, quantification, verification and falsification. We will examine when a theory can be seen as verified, confirmed and falsified, and which results confirm a given theory. During the course, we are going to illustrate with historical and contemporary examples how the above discussed methodological rules have been put into practice.

12. Theory and Practice of Environmental Economics

**Neptun code:** BMEGT42N000  
**Credit:** 4 credits  
**Responsible Department:** Department of Environmental Economics  
**Semester:** autumn/spring

The subject is to present the most important principles of environmental economics, environmental policy and sustainability as well as to show some practical applications. The topics
included: systems and relations of economy, the society and the environment, a historical overview of environmental economics, the concept, levels and different interpretations of sustainable development. Environmental policy from an economic perspective is also discussed: its definition and types, economic and regulatory instruments in environmental protection, their advantages and limitations. Theoretical approaches include the theory of externalities, internalisation of externalities, Pigovian taxation, the Coase theorem, environmental economics in a macroeconomic context, alternative, “green” macro-indicators (NEW, ISEW,GPI), monetary environmental valuation, the concept of total economic value and environmental valuation methods (cost-based methods, hedonic pricing, travel cost method, contingent valuation, benefit transfer).


13. Hungarian and EU Environmental Strategies

Neptun code: BMEGT42N001
Credit: 4 credits
Responsible Department: Department of Environmental Economics
Semester: autumn/spring

The course is aimed at providing an insight into the interrelationships between government and natural resources, and the theoretical and practical opportunities for executing strategies of sustainable development. The course will introduce the development of the concept of sustainable development, from its earliest days to the global factors of contemporary days. The course will explore the possible paths of transitioning to sustainability, firstly through the aspect of resource management, and secondly from an aspect of corporate management, through Corporate Social Responsibility. The local and micro-regional levels of sustainability will be addressed. Students will get an insight into sustainable consumption, and closing the open links in the economic chain, including “Retain – Reduce – Re-Use – Recycle”, and the principles of Life Cycle Analysis. Students will get an overview of regulating recycling and other policy measures. Finally, the course will focus on the technological foresight in conjunction with sustainable development, and the outlines of the key trajectories. To wrap up the course, an overview of European sustainable development policy will be given.

14. Regional Economics

Neptun code: BMEGT42N002
Credit: 2 credits
Responsible Department: Department of Environmental Economics
Semester: autumn/spring

The aim of the subject is to introduce basic, actual regional economics and spatial planning theory as well as the EU and Hungarian practice. The topics of the subject include the roots of spatial planning in economic theory, including the theories of Thünen, Weber and Lösch, the theory of central places, growth poles and growth centres and territorial division of labour (Ricardo, Ohlin). The structural funds of the EU are introduced in detail. Further topics include the types and history of regions in Western, Central and Eastern Europe, regionalisation, decentralisation and regionalism, rural development, the effect of agricultural policy on rural development and rural development in Hungary, urban development, historical overview, differences between Western and Eastern Europe. The main characteristics of infrastructure
development are also introduced, as well as the types of borders, the significance of borders in regional development and cross-border regional co-operations. Finally, the financial instruments of regional development, advantages and disadvantages of various instruments, Hungarian practice, distribution of resources among regions, institutional background and the system, management and financing of Hungarian municipalities are presented.

15. Environmental Management of Energy

**Neptun code:** BMEGT42N003

**Credit:** 2 credits

**Responsible Department:** Department of Environmental Economics

**Semester:** autumn/spring

The aim of the subject is to introduce and expand the scope of sustainable energy and resource management both on a domestic, EU and global scale, primarily from the corporate and policy aspects. The course will give an overview of the energetic status and trends in the EU and the world. It will give an introduction to Energetic Life Cycle Analysis. Business model of energetics and energy enterprises. EU energy policy, environmental and sustainability strategies. Energy strategies and energy-saving programmes. A Sustainability analysis of the environmental effects of the different kinds of sources of energy. Energetic interrelations in climate protection. Pollutions from energetic sources in Hungary and the EU. State institutions of energy and environmental protection policy. Summary and future perspectives.

16. Sociology

**Neptun code:** BMEGT43A002

**Credit:** 2 credits

**Responsible Department:** Department of Sociology and Communication

**Semester:** autumn/spring

The aim of the course is to provide an insight into the processes and operations of modern societies and to assist in the comprehension of the crucial problems of contemporary Hungarian society. The course offers fundamentals for students interested in the social changes brought about in contemporary societies, and provides expertise on the social conditions and consequences of scientific and economic activities that may be taken advantage of in the fields of economics and engineering.

17. Philosophy of Art

**Neptun code:** BMEGT43A186

**Credit:** 5 credits

**Responsible Department:** Department of Sociology and Communication

**Semester:** autumn/spring

The aim of the course is to introduce students to the most important questions and problems in the philosophy of art. We will also study the various methods and tools that enable us to understand and answer philosophical questions and questions in communication theory concerning works of art. We will first look at some attempts to capture and identify the essence of art and art genres, and then we will critically examine the nature of works of art, along with questions about their creation and reception. Having covered the basic concepts, categories and theories of art, we will concentrate on the specific aspects of the creation and reception of graphic, photographic, moving and digital images. Among other issues we will discuss widely.
contested questions concerning „realism” and „realistic depiction”. Although the course focuses on the fundamental issues in the philosophy of art, we will also examine various issues of design.

18. Interdisciplinary Research in Communication Studies
Neptun code: BMEGT43M100
Credit: 5 credits
Responsible Department: Department of Sociology and Communication
Semester: Fall semester only!

The history of research in communication studies has been strongly intertwined with questions concerning research methodologies. The reason for this is that methods for studying communicative phenomena as communicative phenomena have been developed over the course of rethinking and reformulating traditional disciplinary frameworks according to new perspectives, new conceptual systems and new scientific methodologies. The aim of the course is to provide students with an overview of these developments and to introduce them to current research methodologies in communication studies. Theoretical issues will be examined in an interdisciplinary framework, allowing students to study the results and methods of related disciplinary fields (e.g., sociology, anthropology, cultural studies, cognitive, evolutionary and environmental psychology). Small groups of students will conduct specific research projects of their choice during the course of the semester. Topics for discussion will be formulated in relation to these research projects.

19. Introduction to critical cultural studies
Neptun code: BMEGT43M410
Credit: 3 credits
Responsible Department: Department of Sociology and Communication
Semester: Fall semester only!

Cultural studies developed at the intersection of a number of different disciplines and theoretical standpoints. The objective of the course is to introduce these theoretical roots and the current approaches, which have developed within the framework of cultural studies. One of the most important elements of the development of approaches within cultural studies is the critical reassessment of the positivist epistemological tradition according to which reality can be experienced and understood in a relatively unproblematic fashion. Another defining element of a large portion of work within cultural studies is its conceptualisation of culture as always political. According to this approach all texts are inherently political as they inevitably bear the marks of structures of power and are at the centre of struggles over meaning and signification. The problematization of knowledge structures and meaning has contributed to opening up the analysis of reading and consumption towards a sensitivity for the possible independent readings and interpretations created by readers, viewers and consumers based on their own social experience, acknowledging the fact that these readers, viewers and consumers are capable of resisting the dominant readings of different texts and can even construct counter-interpretations opposing the dominant ideology from within the very texts aimed at supporting those dominant positions.

20. European politics
Neptun code: BMEGT43MN20
Credit: 3 credits
Responsible Department: Department of Sociology and Communication
Semester: Spring semester only!
The aim of the course is to introduce students into the theoretical background and development of the European politics and the EU, then a more detailed examination of the particular EU policies. In the first part of the course, we clarify the most important theoretical terms, like politics, nation state, democracy, power, international economic order, globalization and regionalization, international governmental and non-governmental organizations, etc., necessary for the understanding of the complex system of international political and economic order developed after WWII, in which the EU is embedded. Then we deal quite detailed with the historical background, foundation, development of the integration process and institutional set-up of the EU with a special attention to the recent changes, problems and challenges. In the last section students will have the opportunity to examine the most essential EU policy areas, like the finance and budget, agriculture & food, regional and local development, international economic relations, environment and energy, social policy & employment, culture and education.

21. Comparative country studies
Neptun code: BMEGT43A141
Credit: 5 credits
Responsible Department: Department of Sociology and Communication
Semester: Fall semester only!

The main focus of the course is culture, what kind of effect it has on civilizations, societies and economies of past and present. There will be three major topics, such as „FOOD&TRADITIONS, WATER, ENERGY & PEOPLE, ENVIRONMENT&TOURISM” which represent the most challenging areas of development in the 21st century. Under this umbrella topics, we try to explore and compare the culture and life of many continents and regions of the world.

22. Pedagogy-Digital Pedagogy
Neptun code: BMEGT51A001
Credit: 2 credits
Responsible Department: Department of Technical Education
Semester: autumn/spring


23. History of Education and Technologies of Communication
Neptun code: BMEGT51A017
Credit: 2 credits
Responsible Department: Department of Technical Education
Semester: autumn/spring

Pre-history: the language of gestures; cave paintings; the culture of primary orality. The Greek origins of Western education: alphabetic literacy and the philosophy of Plato. Medieval culture: the decline and rebirth of literacy; religious orders; universities in the Middle Ages. A social history of timekeeping: from natural time to the mechanical clock. Image and word: woodcuts,

24. (Lifelong) Learning and Working Life

**Neptun code:** BMEGT51A020  
**Credit:** 2 credits  
**Responsible Department:** Department of Technical Education  
**Semester:** autumn/spring

Emphasizing the development of independent problem-identifying and problem-solving skills by analyzing Hungarian and European labour market challenges. In the framework of optional exercises and self-controlled learning processes and by acquiring the steps of program planning concentrating on the field of technology, training orientation possibilities are granted to participants on their fields of interest. During the training period we try to present the practical applicability and large scale practice orientation through theoretical knowledge, wide-range technological examples, case-studies and the analysis of changes. The participants of this course will gain the necessary knowledge and competences for understanding the importance of sustaining the lifelong competitive knowledge by making individual job and scope of activities analysis based on their own learning competences and methods. They will understand the problems of learning skills as life skills, a new type of human capital, networking, teamwork and working methods in the context of lifelong learning. What does it mean not only surviving but being successful in the dynamically changing professional and global environment today? The development of modern, modular and competence-based methods and curriculum, elaboration of methods, curriculum and programs that allow individual and open learning ways. The thorough modernization of the system of trainers’ training for allowing educators to learn the skills, competences, methodological and practical knowledge which enables them the successful transmission of knowledge.

25. Ergonomics

**Neptun code:** BMEGT52A001  
**Credit:** 2 credits  
**Responsible Department:** Department of Ergonomics and Psychology  
**Semester:** Fall semester only!

Concept of Ergonomics: Man-machine systems, levels of compatibility, characteristics of the human and the technical subsystems, significance and quality of user interface. Workplace design: Basic ergonomic principles and design guidelines for different working environments: workshops in mechanical industry, traditional and open room offices as well as other working places with VDUs, control rooms in the process industry, client service workplaces (governmental organizations, banks and ICT companies). Human factors of safety. Human-computer interaction: Analytical (cognitive walkthrough, guideline review and heuristic) and empirical methods of assessing usability of software and other smart products. Website quality, web-mining. Industrial case studies with the INTERFACE research and assessment workstation.
26. Psychology
Neptun code: BMEGT52A002
Credit: 2 credits
Responsible Department: Department of Ergonomics and Psychology
Semester: Spring semester only!


27. Business Law
Neptun code: BMEGT55A001
Credit: 2 credits
Responsible Department: Department of Business Law
Semester: autumn/spring

The aim of the course: Characteristics of the Anglo-Saxon and continental systems of business law. The development of the system of the Hungarian business law. Basic legal institutions of the state to manage the economics. Organisations and enterprises as the subjects of law: conceptional questions. International models of company law. The development of the Hungarian company law. General rules of the Hungarian Company Act. Internal organisation of companies. The law of company registration, the registration proceedings and the company registry. Companies with a partnership profile. Companies limited by shares. Concept and types of securities. Competition law. EU directives and regulations on companies and competition: their execution in the Hungarian law.

28. Hungarian Culture (2 credit)
Neptun code: BMEGT658361
Credit: 2 credits
Responsible Department: Center of Modern Languages
Semester: autumn/spring

One of the major aims of study abroad programs is to get students acquainted with cultural background of their host country and to develop cross-cultural awareness for successful academic and professional activity in international environment.

This interdisciplinary course covers a variety of interconnected fields to present a comprehensive survey of Hungarian culture and history. The course is thematically organized
and focuses on Hungarian culture as it is expressed through the arts (fine arts, literature, music) together with an insight to everyday life here special emphasis is given to the history of Hungarian thought from early to recent times to satisfy the interest of international students of various technical and economic fields. Selected readings and some museum visits are included. Students are offered the possibility to share their cultural experiences in the form of brainstorming discussions. The course requirement also contains a 10 page essay on a topic related to Hungarian culture.

29. Hungarian Culture (4 credit) Part I
Neptun code: BMEGT658363
Credit: 4 credits
Responsible Department: Center of Modern Languages
Semester: Fall semester only!

Hungarian Culture (4 credit) Part II
Neptun code: BMEGT658364
Credit: 4 credits
Responsible Department: Center of Modern Languages
Semester: Spring semester only!

The interdisciplinary course aims to provide a comprehensive picture of Hungarian Culture through centuries to our times. In accordance with the students’ academic profile special emphasis is given to Hungarian cultural heritage in different fields of science, engineering, and economics. Hungarian poets, writers, composers are also presented in their historical and social settings. Fieldworks of international students with Hungarian counterparts help deeper understand the cultural environment they live in.

30. Beginners’ Hungarian Course
Neptun code: BMEGT658151
Credit: 4 credits
Responsible Department: Center of Modern Languages
Semester: autumn/spring

31. Intermediate Hungarian Course
Neptun code: BMEGT658152
Credit: 4 credits
Responsible Department: Center of Modern Languages
Semester: Spring semester only!