



Turun yliopisto
University of Turku

International Master's Degree Programme in Futures Studies

Turku School of Economics, University of Turku



www.utu.fi/ffrc/masters
www.utu.fi

Master's Degree Programme in Futures Studies (FUTU)

The Finland Futures Research Centre (FFRC) organises a two-year Master's Degree Programme in Futures Studies.

Futures Studies is a new emerging field of research. As the future does not exist yet, the field studies the future projections of and discontinuities in past trends and current views of the long-term future. Futures Studies is interested in the probable futures, possible futures and preferred futures.

As an academic field of research, Futures Studies generates knowledge of the ways and processes of how individuals and organizations deal with the uncertain future. Typical research questions in the field are focused on the epistemology of knowledge about the future, the methodological development of futures studies tools and analyses of alternative futures of a clear topic or a more general theme. Futures Studies is an interdisciplinary field, where rather wide topics are analysed and the results and approaches of more traditional disciplines meet.

The students will build up their knowledge and skills in Futures Studies in a visionary and futures-oriented way. Students will learn to conceptualize reality and events in a multi-disciplinary and systemic way and to analyse local phenomena, social development, and decision-making processes in the light of global change. After studying in the FUTU programme the students will be qualified as experts in future business and the business of the future.

The programme will admit approximately 20 students annually. The application period is December-January for studies beginning in September.

Master's Degree Programme: Futures Studies (FUTU) 120 cr

Obligatory Futures Studies courses 60 cr

- Foundations of Futures Studies
- Scenario Thinking
- Master's Thesis
- Futures Case Evaluation
- Futures Research Methods
- Ethics of Futures Studies

Optional advanced courses (9 cr from the following) 9 cr

- Systems Thinking
- Strategic Foresight
- Futures Research Methods in Practice
- Global Challenges and Sustainable Futures
- Changing Futures Theme

Optional courses 12 cr

- Career Management
- Other studies

Minor 25 cr

Language and communication studies 10 cr

Methodological studies 4 cr



Course Descriptions*

(Academic years 2014–2016)

Foundations of Futures Studies

4 credits

Person responsible	Markku Wilenius
Objectives	Students are able to explain the origins and development of the discipline and know key actors in the field. Students are able to distinguish various theories and approaches of futures studies. Students are able to differentiate futures studies as an academic discipline. Based on elevated awareness of futures studies, students can draw conclusions of a given material.
Content	Content of the course is divided into three parts which are: the history of futures thinking and research, principal actors in the field of futures studies and key theories of futures studies. The objective is to give a broad overview to futures studies and challenge students to understand how futures studies are part of academic disciplines. Moreover, students become familiar with different approaches and methods of futures studies. Students will also learn through various exercises how futures studies are applied to scientific work.
Teaching methods	Lectures 12 hours
Modes of study	Written exam + exercise(s)
Recommended year of study	1 st year autumn
Study materials	<ol style="list-style-type: none"> 1. Bell, Wendell, Foundations of futures studies: human science for a new era. Vol. 1, History, purposes and knowledge. New Brunswick, Transaction Publishers 1997. 2. Bell, Wendell, Foundations of futures studies: human science for a new era. Vol. 2, Values, objectivity and the good society. New Brunswick, Transaction Publishers 1997. 3. Lombardo, Thomas, Contemporary Futurist Thought. Bloomington, AuthorHouse 2006. 4. Masini, Eleonora, Why Future Studies? London, Grey Seal Books 1993. 5. Philosophical essays of Knowledge of the Future, eds. Malaska, Pentti; Masini, Eleonora, Futura 1/2009.

Scenario Thinking

4 credits

Person responsible	Sirkka Heinonen
Objectives	Students are able to apply the principles of scenario building. Students are able to identify and evaluate the development of trends. Based on environmental scanning, students are able to construct scenarios. Students are able to differentiate between various classifications of scenarios and to use different methods critical to scenario building.
Content	<p>The course is divided into four parts. The first part is scenario thinking in the context of strategic decision making. The second is how to gather data for scenario processes by using environmental scanning, the futures wheel method, creating futures table, finding weak signals and analyzing black swans and wild cards. The third part consists of how to create scenarios by assessing the importance and the level of uncertainty by particularly exploring Shell scenarios to illustrate the case. The fourth part is how to move from scenarios to decision making.</p> <p>The objective of the course is to provide students with sufficient theoretical and practical understanding to use the scenario approach. This means that students will go through an intensive learning process where they are challenged to use scenario methods in various circumstances.</p>
Teaching methods	Lectures 10 hours
Modes of study	Written exam + exercise(s)
Recommended year of study	1 st year autumn
Study materials	<ol style="list-style-type: none"> 1. Ralston, Bill; Wilson, Ian, The scenario-planning handbook a practitioner's guide to developing and using scenarios to direct strategy in today's uncertain times. Mason, Thomson South-Western 2006. 2. Schwartz, Peter, The art of the long view: paths to strategic insight for yourself and your company. New York, Currency Doubleday 1996. (chapters on scenarios, details at the beginning of the course). 3. Van Der Heijden, Kees, Scenarios: The art of strategic conversation. Chichester, John Wiley & Sons 2005. 4. Millennium project - Futures Research Methodology V3.0 cd 5. Scenario method: Current developments in theory and practice, eds. Wright, George; Cairns, George; Bradfield, Ron, Technological Foresight and Social Change 80(4) 2013. 6. Shell energy scenarios to 2050 and current articles and reports.

* Subject to change

Ethics of Futures Studies

5 credits

Person responsible	Katriina Siivonen, Matti Minkkinen
Objectives	Students are able to analyze the connections between ethics and futures studies. Moreover, students are able to evaluate the various ethical dimensions of future developments. Particularly with technology foresight and assessment, students are capable of discerning the ethical impacts of various technological applications.
Content	Course gives comprehensive account on the ethical dimensions of futures studies from the point of view of the philosophy of science. Course will deal with two themes: the critical ethical issues of futures studies, and how a practitioner should follow those ethical principles in his/her work.
Teaching methods	Lectures 10 h, group discussions
Modes of study	Written exam + essay
Recommended year of study	1 st or 2 nd year autumn
Study materials	<ol style="list-style-type: none">1. Bell, Wendel, Foundations of futures studies: human science for a new era Vol.2, Values, objectivity and the good society. New Brunswick, Transaction Publishers 1997.2. Philosophical essays of Knowledge of the Future, eds. Malaska, Pentti; Masini, Eleonora, Futura 1/2009.3. A collection of articles.

Futures Research Methods

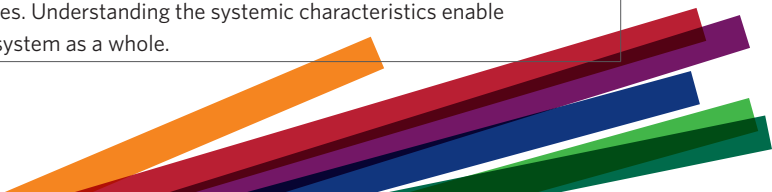
8 credits

Person responsible	Petri Tapio
Objectives	Students are able to integrate different methods into futures research. Students are capable of building a practical case using various methods and build a comprehensive account of given research items.
Content	This course provides a in-depth methodological account of futures studies. The course will be divided into various parts. The quantitative part consists of methods, such as the extrapolation of time-series and mathematical modelling. The second part focuses on how to use expert opinions in foresight activities as well as how to formulate questions for a Delphi panel. The third part covers horizon scanning, weak signals and xevents. Students will be challenged to use these methods in various fictional and real cases. The objective of the course is to give students a clear sense of how to apply various methods in desk-top research as well as in practical work situations. The course critique will be organized as a communicative futures workshop.
Teaching methods	Lectures 22 h
Modes of study	The final grade of the course consists of two parts. An essay of a method (75%) and activity on lectures and/or group assignments and exercises based on the lectures, literature and supplementary material (25%).
Recommended year of study	1 st year spring
Study materials	<ol style="list-style-type: none">1. Delphi Method. Techniques and Applications, eds. Linstone, Harold; Turoff, Murray Updated web-based version 2002.2. Futures Research methodology: version 3.0, The Millenium Project Washington 2009.3. Tapio, P.; Höjer, M.; Svenfelt, Å.; Varho, V. Exploring the space of alternatives. Heuristics in sustainability scenarios. In: Huutoniemi, K. & Tapio, P. (Eds.), Transdisciplinary Sustainability Studies. A Heuristic Approach. Routledge, London 2014.4. Varho, V.; Huutoniemi, K. Envisioning solutions. Expert deliberation on environmental futures. In: Huutoniemi, K. & Tapio, P. (Eds.), Transdisciplinary Sustainability Studies. A Heuristic Approach. Routledge, London 2014.5. A collection of articles.

Systems Thinking

6 credits

Person responsible	Markku Wilenius
Objectives	Students master the different paradigms of systems thinking and are able to link them with futures studies. They are capable of connecting alternative futures assessment with systemic approach and analysis.
Content	The course is divided into two parts. The first part is approaches, paradigms and methodologies of systems thinking. Exploring how systemic approach incorporates the study of relations and interactions between elements, components, constituents and classes. Understanding the systemic characteristics enable to model them in a way that describes the system as a whole.



	The second part focuses on the self-organizing nature of dynamic and complex developments. Students become acquainted with understanding the growing complexity of systems, particularly social systems. In this regard the five critical concepts of autopoiesis will be closer examined: far from equilibrium, entropy, iteration, bifurcation and time. The objective of the course is to learn key concepts and methods of systems thinking and how to apply them in futures studies.
Teaching methods	Lectures 8h
Modes of study	Participation in classroom work + essay
Recommended year of study	1 st year spring
Study materials	<ol style="list-style-type: none"> 1. Ståhle, Pirjo, The dynamics of self-renewal: A systems-thinking to understanding organizational challenges in dynamic environments. A. Bounfour (Ed.) Organisational Capital: Modelling, measuring and contextualizing. London, Routledge 2008. 2. Laloux, Frederic, reinventing organizations, Brussels, nelson Parker 2014 3. Rowley, Robin; Roevens, Joseph, Organize with chaos. Management Books 2000 Ltd 1999. 4. Ball, Philip, Critical mass: how one thing leads to another. New York, Farrar, Straus and Giroux 2006. 5. Meadows, Donella, Thinking in systems – a primer. Chelsea Green publishing 2008.

Strategic Foresight

6 credits

Person responsible	Markku Wilenius
Objectives	Students are able to relate strategic foresight as an integral part of strategic activities of corporations. Students know how to apply futures studies in strategic processes in corporations. They are able to identify the specific role foresight activities play in the corporation and they are capable of questioning conventional strategic thinking.
Content	The objective is to make students understand how to apply futures thinking for strategic activities in corporate environment. Students are given cases to understand how systematic futures thinking enables corporations to increase their competitiveness. Excursion to a company.
Teaching methods	Lectures 16h
Modes of study	Written exam + exercise(s)
Recommended year of study	1 st year spring
Study materials	<ol style="list-style-type: none"> 1. Hines, Andy; Bishop, Peter, Thinking about the future: guidelines for strategic foresight. Washington, Social Technologies 2007. or updated web-based version. 2. Wilenius, Markku; Kurki, Sofi, Surfing the sixth wave. FFRC eBook 10/2012. 3. Hiltunen, Elina, Foresight and Innovation: How companies are coping with the future. Palgrave Macmillan 2013. 4. A collection of articles and reports.

Futures Case Evaluation

8 credits

Person responsible	Katriina Siivonen
Objectives	Students are able to compare various cases based on futures research methods. Students are able to critically evaluate given cases by drawing conclusions and restructuring the logics and contents. Students are able to work as a group in the evaluation process. Students are capable to evaluate and summarize futures cases from the beginning to the conclusions.
Content	This course will give students ability to apply futures studies methods in various case studies. Students will be provided material of different case studies done at the Finland Futures Research Centre such as future of security, green care, hybrid organisations, rural strategy, transport, food, and global futures map. On the basis of these as well as other given additional material students will make a case study of a given topic in groups.
Teaching methods	Lectures 16h, group work
Modes of study	Written exam + exercise(s)
Recommended year of study	1 st year autumn
Study materials	A collection of current reports and articles.



Futures Research Methods in Practice

6 credits

Person responsible	Sofi Kurki
Objectives	Students are able to recognize how different methods of futures studies are applied in regional and national foresight activities. Students are able to suggest and choose appropriate methods for a given topic and context.
Content	This course focuses on governmental, regional and national foresight processes. Students are instructed on how to use various methods. Case studies of completed national or regional foresight including the following methods (workshop, Delphi, creative participatory futures design, technology foresight and road mapping, game simulation).
Teaching methods	Lectures 12 h, Independent work
Modes of study	Written exam + essay
Recommended year of study	1 st year spring
Study materials	<ol style="list-style-type: none">1. Schwartz, Peter, The art of the long view: paths to strategic insight for yourself and your company. New York, Currency Doubleday 1996.2. Government foresight report on long-term climate and energy policy: towards a low-carbon Finland. Helsinki, Prime Minister's Office Publications 2009.3. Futures Research methodology: version 3.0, The Millenium Project Washington 2009.4. Collection of articles and foresight reports.

Global Challenges and Sustainable Futures

6 credits

Person responsible	Jyrki Luukkanen
Objectives	Students are able to analyse different trends of global development and their relation to the different dimensions of sustainable development. They are able to analyse the global drivers of the trends and their impacts on futures development. They are able to study the global resource use and related development and sustainability challenges. Students are also able to evaluate various alternative efforts to deal with these problems.
Content	Key global challenges and their critical trends are examined by trend and correlation analyses. Exercises concerning analysis of Impact Population Affluence Technology (IPAT) type relations associated with different dimensions of sustainability. Student study decomposition analysis and use of Advanced Sustainability Analysis (ASA) approach in the evaluation. Resource and other productivity measures and the long term challenges of globalization are examined as well as their linkages on environment and poverty issues.
Teaching methods	Lectures 24h, Group Work
Modes of study	Written exam + exercise(s)
Recommended year of study	1 st and 2 nd year spring
Study materials	<ol style="list-style-type: none">1. The Post Carbon Reader: Managing the 21st Century's Sustainability Crises, eds. Heinberg, Richard; Lerch, Daniel, Healdsburg, Watershed Media 2010.2. Herendeen, Robert, A, Ecological Numeracy. Quantitative Analysis of Environmental Issues. Hoboken, Wiley 1998.3. A collection of articles to be defined at the beginning of the course.

Changing Futures Theme

3 or 6 credits

Person responsible	Markku Wilenius
Objectives	Students will further their knowledge of current trends in futures research, theories and actors in the field.
Content	Current futures course (not arranged every year) on international or domestic issues. Students will participate the course of a given theme, read requested materials and produce a report.
Teaching methods	Lectures + exercise(s)
Modes of study	Written exam + essay
Study materials	Collection of books and articles, will be defined according to theme.



Career Management

2 credits

Person responsible	Johanna Kärki
Objectives	The aim of the course is to develop understanding of futures orientation, personal futures and personal career management. The students will develop and diversify their skills in multidisciplinary problem solving, teamwork and professional skills. They will learn to recognize and create opportunities based on acquired knowledge and experiences. The students will learn how to transfer their theoretical knowledge into skills. The students will develop their professional skills by the use simulations, assignments and commissions.
Content	he course consists of personal futures orientation, career simulation and planning. A work-life simulation tool is used to support personal futures planning both in orientation and kick-out sessions. The students will have the opportunity to take part in various projects that give them opportunities to work with real-life cases, assignments and commissions.
Modes of study	Participation in course orientation and kick-out sessions, portfolio. The students will be expected to participate in the course orientation and a minimum of one other module. The students will collect a portfolio from the work concluded throughout the course. The portfolio will consist of: all of the work concluded during the course, personal reflections, a recently updated plan that analyses the student's possibilities to pursue their program related career and the reports of the work-life simulations done during the course. The portfolio will be returned to the program coordinator.
Recommended year of study	1 st and 2 nd year
Study materials	Articles and other material defined by the contact persons.

Master's Thesis

30 credits

Person responsible	Petri Tapio, Markku Wilenius
Objectives	Students are able to produce a scientific report based on futures studies methodologies. Students are able to formulate a research problem and give arguments to support their hypothesis.
Content	<p>The master's thesis is a mandatory requirement for the Master of Arts degree. The aim of the period of study dedicated to the thesis process is to provide the student with the necessary tools for locating scientific information and applying it in order to find a solution to a research problem. Before starting work with the master's thesis the student must have completed sufficient amount of studies in Futures Studies in order to be able to independently choose the focus area of the thesis.</p> <p>Working with master's thesis takes two terms. At its best, the master's thesis is a productive and advanced study in the problematics of a specific subject matter. The process involves a set number of compulsory seminar group meetings, since a fundamental part of the learning process is the oral presentation of one's work and the ability to discuss the works of others. The students can be excused from attending the seminar meetings only under special circumstances, and the non-attendances have to be compensated. Compensation work has to be confirmed with the teacher beforehand.</p> <p>Once the thesis work is complete and bound, the student is required to take a maturity essay. The essay must be taken in conjunction with the master's degree. For students whose tuition is given in English, the maturity essee demonstrates the student's command of the subject area covered by the thesis.</p>
Teaching methods	Lectures + exercise(s)
Modes of study	Thesis/Dissertation



The future is created today

The Master's Degree Programme in Futures Studies is designed to educate foresight experts who help organisations to harness future opportunities and avoid unnecessary risks. The programme trains students to become professionals who are competent to choose from various methods when facing a particular development challenge.

The students will get a versatile toolkit to implement foresight thinking for the benefit of a given organisation. They will qualify to a wide array of expert positions in the strategic/foresight units of private companies or public institutions. Foresight experts are found for example in governmental offices, private companies and academic research centers. The programme also serves as an excellent basis for building a consultant business.

The programme includes plenty of rehearsal, case-studies and real-life experiences on using foresight methodology, ranging from quantitative and qualitative methods to innovative and creative futures design techniques. The students will become visionary thinkers with a futures oriented state of mind.

The programme is run by the Finland Futures Research Centre, which is the only academic futures research organization in Finland and the biggest in the Nordic countries. The Centre is specialized in futures studies and foresight. The master's degree programme utilizes the resources, connections and personnel of the Centre to provide students with a comprehensive, multidisciplinary and practical education in the field of futures studies.

CONTACT INFORMATION

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"Futures studies is unique and different from mainstream programmes. The courses include interesting projects where you can apply your knowledge in practice."

Trinesh Champaneri, U.K.



"The programme provides me with the possibility to not only add a futures focus to my own educational background, but also to work in multidisciplinary teams and gain experience in coping with problem solving."

Nina Jentl, Austria



"I am happy to be training as a futurist because I have realized the importance of futures consciousness in planning, decision making and even in everyday life."

Martins Kwazema, Nigeria

- Master of Arts
- Duration: 2 academic years (120 ECTS)
- Language of instruction: English
- Major: Futures Studies
- Minor: Economic Sociology, Entrepreneurship, Management and Organisation or Sustainable Development
- For application requirements and procedure as well as more details on the curriculum, please visit:
www.utu.fi/ffrc/masters
- For all international Master's Degree Programmes available at the University of Turku, please see:
www.utu.fi/masters