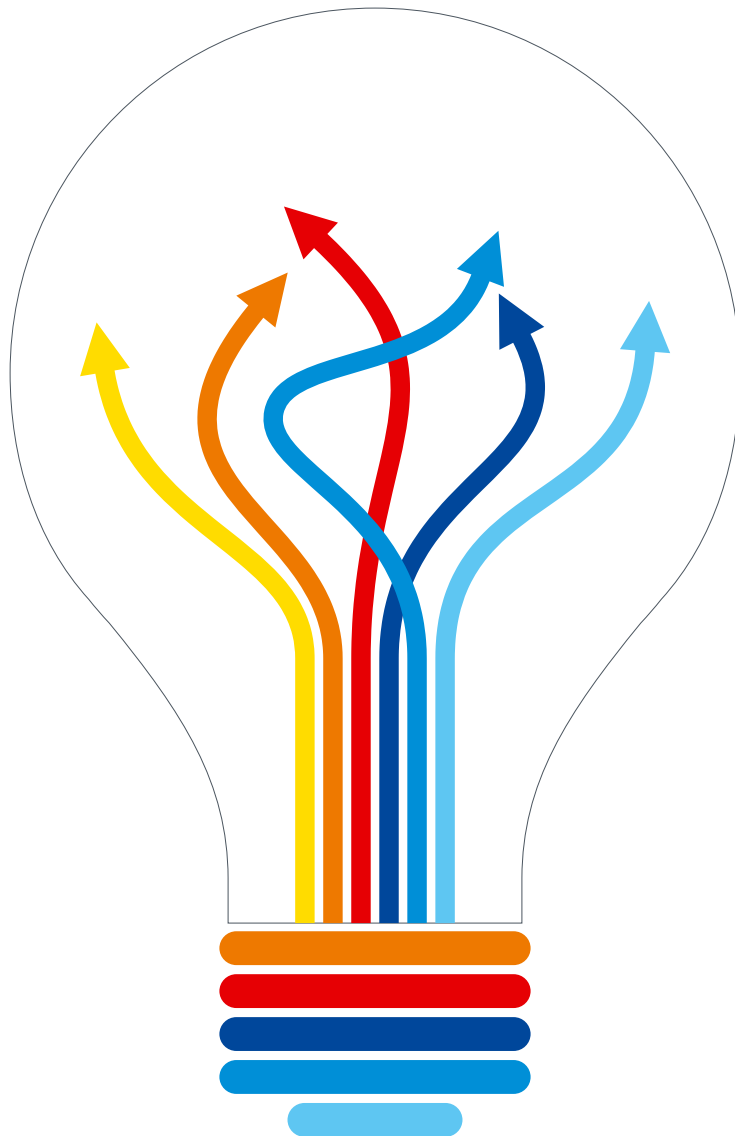


JOSIP JURAJ STROSSMAYER UNIVERSITY IN OSIJEK, CROATIA  
FACULTY OF ECONOMICS IN OSIJEK



# ENTREPRENEURSHIP AND INNOVATIVENESS

developed within the framework of the TEMPUS Joint European Project - **ICES - International Centre for Entrepreneurial Studies**  
financed by the EU, 2007-2009

in co-operation with: University of Turku, Finland | University of Maribor, Slovenia | University of Klagenfurt, Austria | Durham University, United Kingdom



Education and Culture DG



International inter-university postgraduate  
interdisciplinary doctoral program



International  
inter-university  
postgraduate  
interdisciplinary  
doctoral program

**ENTREPRENEURSHIP  
AND INNOVATIVENESS**

organized by  
J.J. Strossmayer University in Osijek  
Faculty of Economics in Osijek

in co-operation with professors from:  
University of Turku, Finland  
University of Maribor, Slovenia  
University of Klagenfurt, Austria  
Durham University, United Kingdom  
University College Cork, Ireland  
Delft University of Technology, Netherlands  
St. Louis University, USA  
Stanford University, USA  
Howard University, USA  
Darden School of Business, University of  
Virginia, SAD  
University of Vaasa, Finland  
Leiden University, Netherlands  
University of Rijeka, Croatia  
GEA College, Slovenia

Partners of the program:  
National Competitiveness Council, Croatia  
Centre for Entrepreneurship Osijek  
BIOS, Osijek  
CEPOR, Zagreb  
Microsoft Croatia



*"Doctoral program ENTREPRENEURSHIP AND INNOVATION is designed to fulfill expectations of crossing the boundaries of disciplines by challenging assumptions and connecting unconnected pieces of knowledge. It is a pioneering work for all of us, students and mentors alike, and the expected outcome is (re)energizing through new horizons, networks and fun of being a part of such a group."*

Slavica Singer, J.J.Strossmayer University in Osijek, Croatia



*"Successful entrepreneurship has always been international and global. In order to fulfill its aims, entrepreneurship education must be the same."*

Miroslav Rebernik, University of Maribor, Slovenia



*"This unique entrepreneurial doctorate is expected to position the PhD as an Entrepreneurial Learning Experience with focus upon: Futures (the doctoral concept deconstructed in the context of university/society change); Relevance (to society stakeholder problems and opportunities); Multi-disciplinary (working across the established bodies of knowledge); Experiential Learning (valuing tacit knowledge and heuristic models); Cultures and Meanings (the global challenge and meanings in different cultures); Philosophy of Practice and Entrepreneurial Personal Development."*

Allan Gibb, Durham University, United Kingdom



*"The Doctoral Program ENTREPRENEURSHIP AND INNOVATIVENESS is an international, intercultural and interdisciplinary program for outstanding students that are willing to think out of the box. Applying proven theories as well as reaching out for new insights and theory development, using scientific research methods and transferring the knowledge to both, practitioners and the scientific community fosters the creation of an entrepreneurial society. Furthermore, education in entrepreneurship and innovativeness is significant for the development of societal welfare."*

Erich J. Schwarz, University of Klagenfurt, Austria



*"Entrepreneurship is the key driver for job creation, innovation and economic growth. This program challenges the students into becoming top level international academic experts in a challenging entrepreneurial learning environment.."*

Antti Paasio, University of Turku, Finland



*"This international inter-university and interdisciplinary doctoral program gives students an outstanding opportunity to learn the different dimensions of entrepreneurship; social, economic, regional and individual aspects of entrepreneurial behavior. And an extra flavour and contribution comes from having an opportunity to work in international teams of students and professors and even with the help of virtual learning platform."*

Jouko Havunen, University of Vaasa, Finland



Faculty of Economics and Rectorate of the J.J. Strossmayer University in Osijek

## ABOUT THE PROGRAM ...

Starting the international inter-university interdisciplinary postgraduate (doctoral) study ENTREPRENEURSHIP AND INNOVATIVENESS was stimulated by the need for creation of competitive knowledge necessary for strengthening the proactive and innovative capacity of individuals and society in facing changes and managing changes. Study is the result of the TEMPUS Joint European Project International Centre for Entrepreneurial Studies (CD\_JEP-41014-2006), which was realized by Josip Juraj Strossmayer University in Osijek, Croatia; University of Turku, Finland; University of Maribor, Slovenia; University of Klagenfurt, Austria and Durham University, United Kingdom in the 2007-2009 period.

Building educational capacity at all levels of education for training for initiative and entrepreneurship requires creating a critical mass of educators from that interdisciplinary area, that is, creating teams of educators in different disciplines who can implement entrepreneurship education programs at different educational levels, from primary to tertiary.

## OPENNESS OF THE STUDY AND MOBILITY OF ATTENDANTS

Considering the interdisciplinary character of entrepreneurship, which can be defined in the narrow (within social sciences) or the wide sense (as cognitive science within the interdisciplinary area of science), doctoral study ENTREPRENEURSHIP AND INNOVATIVENESS is open to everyone interested who want to contribute to the hybridization of knowledge, and thus develop competence for innovative approach to diagnosing and solving problems.

Since five universities participated in the development of the concept of the program, whose lecturing teams will also participate in its realization, students are given the opportunity to, without payment of tuitions, on the principle of reciprocity, use teaching and research resources of partner universities, on the basis of the signed Agreement of Co-operation between universities.

Study program is expressed through ECTS credits, which will enable mobility of the attendants of the program, transfer of points, or accumulation of points within the system of lifelong learning.



Global Entrepreneurship Week, 2010, Faculty of Economics in Osijek

## COMPETENCIES WHICH STUDENT ACQUIRES UPON COMPLETION OF THE STUDY

Regardless of the organization of the study (full time or part time), doctoral candidates are obligated to acquire the same number and structure of points. If necessary, part time students can extend the time for research work on the doctoral thesis.

Individual courses/seminars/workshops can be enrolled into by doctoral candidates from other studies or by non-doctoral students, if they fulfil conditions for enrolment in this level of study, and can obtain a certificate on fulfilment of the required conditions for the course/seminar/workshop in question.

Upon completing the doctoral study ENTREPRENEURSHIP AND INNOVATIVENESS students will possess knowledge and skills required for independent and team research work in the interdisciplinary scientific field within social sciences:

- Demonstrating possession of systematic knowledge about the fundamental determinants of entrepreneurial behaviour and relevant areas on which that behaviour depends,
- Qualification to use theories and conceptual frameworks for dissemination of research results,
- Application of ethical principles in designing and implementing research and presentation of research results,
- Ability of critical synthesis of scientific literature,
- To be qualified for the selection, application and interpretation of adequate research methods and techniques,
- The ability to contextualize scientific knowledge with the aim of identification of the research problem,
- The ability to conduct open, objective and critical analysis and valuation of new and other people's scientific ideas results,
- The ability of presenting and communicating; ability to prepare proposals for financing of the research work; managing projects and research teams,
- The ability of dissemination of research results in scientific and general public.

General competencies that are acquired include:

- Greater flexibility in dealing with change and the ability of continuous improvement (potential for learning),
- The ability to assume responsibility and solve problems (leadership potential).



Sanja Pfeifer, PhD

## DESCRIPTION OF THE PROGRAM

Study program includes organized classes, direct individual scientific-research work on the doctoral dissertation, and elective scientific and teaching activities. The study lasts three years. Each student gains at least 180 ECTS credits.

Out of a total of 180 ECTS credits

- 60 ECTS credits are gained through organized classes, out of which 35 ECTS credits through obligatory courses and 25 ECTS credits through elective courses
- 90 ECTS credits are gained through individual scientific-research work focused on the doctoral dissertation
- 30 ECTS credits are gained through elective teaching and scientific activities.

### Class activities (60 ECTS)

Classes are divided into 3 semesters during which theoretical and methodological bases for understanding entrepreneurship and innovativeness are acquired.

In the **first semester**, students attend two obligatory courses and elective course(s) and/or workshop/seminar with which they gain a minimum of 20 ECTS credits.

During the **second semester**, students gain basic knowledge about the methodology of scientific-research work, through two obligatory and elective course(s) and/or workshop/ seminar (minimum of 20 ECTS).

During the **third semester** of studying, students have three obligatory and elective course(s) and/or workshop/seminar, with which they deepen interdisciplinary approach to entrepreneurship and innovativeness (20 ECTS). In each semester, students have the opportunity to choose from a wide range of courses, which will contribute to profiling of each candidate according to individual research interests.



Allan Gibb, PhD

## SCIENTIFIC-RESEARCH ACTIVITIES FOCUSED ON THE DOCTORAL DISSERTATION (90 ECTS)

After the third semester, in agreement with the mentor/supervisor of doctoral work, students choose their research topic and, in collaboration with the mentor/supervisor of doctoral work, submit their proposal of doctoral dissertation. Students have to defend their proposal of doctoral dissertation before an audience of students and professors. Scientific-research activities on preparation of the doctoral dissertation include selection of the topic, writing the proposal of the topic, public defense of the topic, research activity conducted at own and other universities (especially the partners in execution of this study), and writing the dissertation, and public defense of the dissertation. The dissertation is written in Croatian (with a summary in English) or English language.

## ELECTIVE TEACHING AND SCIENTIFIC ACTIVITIES (30 ECTS)

Students have the possibility to choose between various teaching and scientific activities, with which they strengthen their teaching and/or research competence (publishing papers in secondary cited publications, presenting papers at conferences, participating in execution of undergraduate, graduate and/or specialist classes).



## VIRTUAL LEARNING PLATFORM VLP – SUPPORT TO THE EXECUTION OF THE PROGRAM

([www.ices-study.org](http://www.ices-study.org))

developed in co-operation with Microsoft Croatia

The main purpose of the virtual platform for learning and research is to improve capacities for learning, teaching and researching in members of the consortium of the doctoral study ENTREPRENEURSHIP AND INNOVATIVENESS and other partner institutions in providing educational programs in entrepreneurship. The aim of the platform is to support interactive learning and teaching about entrepreneurship, develop a base of educational methods and processes that contribute to the development of entrepreneurial way of thinking, and become a forum for the development of communities of practice in the area of entrepreneurship and innovativeness.

Target groups of the platform are primarily students of this inter-university doctoral program ENTREPRENEURSHIP AND INNOVATIVENESS, current and future lecturers at the doctoral study, and the business environment, that is, entrepreneurs who want to perfect their knowledge in entrepreneurship.

By placing emphasis on communication tools that will enable personalization for each user (customization of interface and priority information), targeted connecting of students and teachers according to their common interests and creation of social and research network of the program (communities of practice) are enabled.

## STRUCTURE OF THE PROGRAM

**The first semester** is focused on the theoretical foundations of entrepreneurship (psychological, economic, technological, sociological), and understanding the connection between innovativeness and entrepreneurship. It is expected that students will receive a wide conceptual framework within which they will recognize theoretical evolution of entrepreneurship, and have a critical approach to different schools of thought in that area.

**The second semester** is focused on the methodology of scientific research, i.e., on qualitative (with a special emphasis on case study, ethnographic research, oral history, grounded theory, etc.) and quantitative methods of research, relevant for the area of entrepreneurship, and on understanding of personal development during the work on the doctoral dissertation, also encompassing the ethics of scientific research.

**The third semester** provides the opportunity for deepening the understanding between technology, human resources and financial aspects of entrepreneurial activity.

## ACTIVITIES BY SEMESTER

| 1. semester                                 | Courses   | Lecturers                                     | ECTS credits |
|---|---|---|--------------|
| Obligatory courses:                         | Theoretical Foundations of Entrepreneurship                         | Allan Gibb<br>Slavica Singer<br>Sanja Pfeifer | 5            |
|   | or Turku: Theoretical Perspectives of Entrepreneurship              | Antti Paasio                                  | 8            |
|   | or Maribor: Entrepreneurship Studies – Theories and Methodology     | Miroslav Rebernik<br>Polona Tominc            | 5            |
|   | Innovation and Entrepreneurship                                     | Antti Paasio<br>Mirna Leko Šimić              | 5            |
| Elective courses and/or workshops/seminars: | By choice, from the list of elective courses and workshops/seminars |   |              |
| Other activities:                           | By choice, from the list of other activities                        |   |              |

| 2. semester                              | Courses   | Lecturers  | ECTS credits |
|--|---|--|--------------|
| Obligatory courses:                      | Methodology of Entrepreneurial Research                             | Jerome Katz<br>Rudolf Scitovski<br>Nataša Šarlija<br>Marijana Zekić Sušac<br>Marko Kohtamaki | 5            |
|  | Entrepreneurial Insight & Personal Development                      | Allan Gibb<br>Zoran Sušanj   | 5            |
| Elective course and/or workshop/seminar: | By choice, from the list of elective courses and workshops/seminars |  |              |
| Other activities:                        | By choice, from the list of other activities                        |  |              |

| 3. semester                              | Courses   | Lecturers  | ECTS credits |
|--|---|--|--------------|
| Obligatory courses:                      | Technopreneurship   | Harmen Jousma<br>Vlasta Piližota<br>Jadranka Deže<br>Josip Mesarić   | 5            |
|  | Effectuation, Learning Organization and Human Resources             | Saras Sarasvathy<br>Sanja Pfeifer<br>Zoran Sušanj<br>Susan Harmeling | 5            |
|  | Entrepreneurial Finance and Venture Funds                           | Nataša Šarlija<br>Stipan Penavin<br>Marijan Karić                    | 5            |
| Elective course and/or workshop/seminar: | By choice, from the list of elective courses and workshops/seminars |  |              |
| Other activities:                        | By choice, from the list of other activities                        |  |              |

| 4-6. semester                               |  |
|---|--|
| Elective courses and/or workshops/seminars: | By choice, from previous semesters   |
| Scientific-research activities:             | Stay at partner universities<br>Writing the proposal of the topic of the doctoral dissertation<br>Writing and defense of the doctoral dissertation |
| Other activities:                           | By choice, from the list of other activities   |

## LIST OF ELECTIVE COURSES

| Semester                                       | Course   | Lecturers  | ECTS credits |
|--|--|--|--------------|
| 1. semester                                    | <b>Osijek</b>  |  |              |
|  | Triple Helix   | Henry Etzkowitz<br>Željko Turkalj<br>Sunčica Oberman Peterka | 5            |
|  | <b>Turku</b>   |  |              |
|  | Business Development Laboratory: Turning Ideas into Business | Pasi Malinen   | 7            |
|  | <b>Klagenfurt</b>  |  |              |
|  | Entrepreneurship and Evolutionary Economics                  | Lambert T. Koch  | 5            |
|  | Special topics of entrepreneurship                           | Erich Schwarz<br>Malgorzata Wdowiak                          | 5            |
| International Business and Entrepreneurship    | Richard W. Wright  | 5  |              |
| 2. semester                                    | <b>Osijek</b>  |  |              |
|  | Philosophy of Science  | Allan Gibb   | 5            |
|  | Statistical Research Methods                                 | Jasna Horvat   | 5            |
|  | Business Valuation Methods                                   | Stipan Penavin   | 5            |
|  | Financial Modeling   | Nataša Šarlija   | 5            |
|  | <b>Turku</b>   |  |              |
|  | The survey method in entrepreneurial research                | Pia Arenius<br>Antti Paasio                                  | 4            |
|  | Qualitative methods in entrepreneurial research              | Ulla Hytti   | 4            |
| <b>Klagenfurt</b>                              |  |  |              |
| Entrepreneurship and Innovation (case studies) | Deirdre Hunt   | 5  |              |

| Semester  | Course   | Lecturers  | ECTS credits |
|---|--|--|--------------|
| 3. semestar   | <b>Osijek</b>  |  |              |
|   | Marketing Theory   | Marcel Meler                                     | 5            |
|   | Entrepreneurial Strategies for Growing Businesses                    | Slavica Singer                                   | 5            |
|   | Microeconomics of Competitiveness                                    | Slavica Singer<br>Sanja Pfeifer<br>Mira Lenardić | 5            |
|   | Family Business  | Robert H. Brockhaus<br>Jaka Vadnjaj              | 5            |
|   | SMEs in a Network Economy  | Jouko Havunen                                    | 5            |
|   | <b>Turku</b>   |  |              |
|   | Innovations and Global Growth  | Antti Paasio                                     | 5            |
|   | New Practice   | Antti Paasio<br>Jussi Paasio                     | 10           |
|   | <b>Maribor</b>   |  |              |
|   | Marketing Theory   | Damijan Mumel                                    | 5            |
|   | International Economy – Global Marketing and Supply Chain Management | Milan Jurše<br>Klavdij Logožar                   | 5            |
|   | Global Business and Economic Policy                                  | Rasto Ovin                                       | 5            |
| <b>Klagenfurt</b>   |  |  |              |
| Management of Technology Transfer – Inter/-national and regional perspectives | Kirsten Tangemann  | 5  |              |

## LIST OF ELECTIVE WORKSHOPS/ SEMINARS

|                        | Workshop / seminar  | Lecturers  | ECTS credits |
|------------------------|---|--|--------------|
| Seminars/<br>workshops | <b>Osijek</b>   |  |              |
|                        | Managing Universities   | Hans Wissema                                     | 5            |
|                        | Schumpeterian Foundations of Entrepreneurial Economy                                    | Ivan Ferenčak<br>Ivana Barković<br>Vladimir Cini | 5            |
|                        | Scientific reading and research communication – deconstructing PhD dissertation         | Allan Gibb                                       | 5            |
|                        | <b>Durham University Centre for Entrepreneurial Learning</b>                            |  |              |
|                        | Entrepreneurial Learning, Durham University Centre for Entrepreneurial Learning         | Allan Gibb<br>Dinah Bennett                      | 5            |
|                        | <b>Klagenfurt</b>   |  |              |
|                        | PhD Seminar in the field of innovation management and entrepreneurship                  | Erich Schwarz                                    | 5            |
|                        | <b>Maribor</b>  |  |              |
|                        | Doctoral seminar at the International Entrepreneurship and Innovation Conference, PODIM | Miroslav Rebernik<br>Barbara Bradač              | 5            |



Doctoral seminar, Durham Business School, June 2008, Durham, UK

## PROFESSORS AND GUESTS

Participating in the inter-university doctoral study ENTREPRENEURSHIP AND INNOVATIVENESS are lecturers from Josip Juraj Strossmayer University in Osijek (Faculty of Economics, Faculty of Law, Faculty of Agriculture, and Faculty of Food Technology), British Durham University, Finnish University of Turku and University of Vaasa, Austrian University of Klagenfurt, Slovenian University of Maribor and GEA College, Irish University College Cork, and American universities Stanford University, St.Louis University and Howard University.

### LECTURERS:

#### J.J. STROSSMAYER UNIVERSITY IN OSIJEK, CROATIA

**Ivana Barković**  
Faculty of Law in Osijek

**Vladimir Cini**  
Faculty of Economics in Osijek

**Jadranka Deže**  
Faculty of Agriculture in Osijek

**Ivan Ferenčak**  
Faculty of Economics in Osijek

**Jasna Horvat**  
Faculty of Economics in Osijek

**Marijan Karić**  
Faculty of Economics in Osijek

**Mirna Leko-Šimić**  
Faculty of Economics in Osijek

**Mira Lenardić**  
Faculty of Economics in Osijek

**Marcel Meler**  
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**Josip Mesarić**  
Faculty of Economics in Osijek

**Sunčica Oberman Peterka**  
Faculty of Economics in Osijek

**Stipan Penavin**  
Faculty of Economics in Osijek

**Sanja Pfeifer**  
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**Vlasta Piližota**  
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Department of Mathematics  
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Faculty of Economics in Osijek

**Zoran Sušanj**  
Department of Psychology  
Faculty of Philosophy in Rijeka

**Nataša Šarlija**  
Faculty of Economics in Osijek

**Željko Turkalj**  
Faculty of Economics in Osijek

**Marijana Zekić-Sušac**  
Faculty of Economics in Osijek





Dream Doctoral Retreat, Osijek, May 31 - June 04, 2010, Saras Sarasvathy with participants

#### FOREIGN LECTURERS

**Pia Arenius**  
University of Turku, Finland

**Dinah Bennett**  
Durham University, United Kingdom

**Barbara Bradač**  
University of Maribor, Slovenia

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St. Louis University, USA

**Henry Etzkowitz**  
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**Allan Gibb**  
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**Susan Harmeling**  
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**Ulla Hytti**  
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**Harmen Jousma**  
Leiden University, Netherlands

**Milan Jurše**  
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**Jerome Katz**  
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**Lambert T. Koch**  
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**Marko Kohtamaki**  
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**Klavdij Logožar**  
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**Hans Wissema**  
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#### Information about the study can be obtained:

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