Halmstad Research School in Entrepreneurship - Health

Presenting a

Doctoral course in "Health, lifestyle and entrepreneurship"

Halmstad University has established a new graduate school (2007) focusing on innovation and entrepreneurship in the areas of health and wellbeing. For 2008/09 the School is planning to give a doctoral course in "Health/health-technology, lifestyle and entrepreneurship".

Health, lifestyle and entrepreneurship (HLE), 7.5 credits
Level Doctoral

PLACEMENT IN THE ACADEMIC SYSTEM
HLE is part of the Graduate School Entrepreneurship-Health, Halmstad University. Students who plan to follow the course as part of a PhD research training programme can apply to have this course credited as part of the doctoral student's research training if the student's supervisor / examiner approves the course as part of the student's research training. Such an agreement should be made prior to the start of the course. The course is at PhD research level and is planned to comprise 7.5 credits in the PhD research training programme. Upon successful completion of the course, a certificate will be issued as evidence of this. Crediting of points in a PhD training programme is made by the university at which the PhD student has been admitted.

PREREQUISITES AND CONDITIONS OF ADMISSION
HLE is open for doctoral students from all disciplines at Halmstad University. It is also open for students from other Universities.

COURSE OBJECTIVES

The aim of the course is to introduce the students to the topics of innovation and entrepreneurship in the areas of health-technology and well-being. The course addresses students from different disciplines, e.g. health, technology and economics, with an overall ambition of linking 'Innovation and Entrepreneurship' with 'Healthcare' and 'Lifestyle'. Students are not required to have studied these topics before.

The course will give a basic understanding of the principles behind A) innovation and entrepreneurship, B) The psychology of exercise and health prevention, and C) Digital Healthcare. The purpose is to link the three areas closer together, and introduce the students to a critical thinking of health, innovations and economic renewal. In Part A of the course 'Innovation and Entrepreneurship', the focus is on how economic growth and change are driven by innovations and different forms of entrepreneurship as means of appropriating returns from innovations. Part B will give the students an introduction to the principles behind the psychology of exercise and health prevention. This includes a holistic view on innovative and health related issues in social and health sciences. Part C) aims to give a view of how information and communication technology can be used in health and healthcare settings − sometimes referred to as digital health. The main focus is on what type of products and services can be expected in the future and how they will affect different stakeholders.

Below the **Primary Contents**, **Teaching Formats**, **Assignments** and **Literature** are presented for each of the three Parts.

Part A) Innovation and Entrepreneurship

Åsa Lindholm Dahlstrand

COURSE OBJECTIVES

The aim of this part of the course is to introduce the students to a critical analysis of the management and economics of innovation and entrepreneurship. The focus is on how economic growth and change is driven by innovations and different forms of entrepreneurship as means of appropriating returns from innovations.

Part A 'Innovation and Entrepreneurship' is a central part of the course "Health (or health-technology), lifestyle and entrepreneurship". The overall ambition is to link 'Innovation and Entrepreneurship' with 'Health/Health-technology' and 'Lifestyle'. Students are not required to have studied innovation and/or entrepreneurship before.

After completion of the course the student should

a) Be able to identify and describe basic concepts. Particularly important concepts include innovation, economic growth, competitiveness, government policy, entrepreneurship, firms, firm performance, and economic growth.
b) Have a basic understanding of the dynamics, complexity and causality in the interaction between innovation and economic change that goes beyond what is given in traditional economics and business administration courses.
c) Have a reasonably coherent frame of reference together with concepts, models, theory elements and methods for the systematic analysis of economic conditions.
d) Have an ability to analyze the innovative and economic aspects of a real-world situation.
e) Have an understanding of the conditions and challenges for innovation management practices.
f) Have some acquaintance with research in the field.

PRIMARY CONTENTS

The focus is on organizing innovation and entrepreneurship. It addresses questions of how and why actors (organizations and individuals) innovate, and how these innovations change the competitive landscape. Innovation is a broad concept having to do with novelty of economic value. It is well known that innovation and entrepreneurship, in various forms, are critical factors influencing competitiveness and economic growth.

Issues addressed in the course include: (a) Who are the innovators and what are their characteristics?, (b) Who are the entrepreneurs and what are their characteristics? (c) Who makes money and why? (d) What are the characteristics of innovations and innovation processes? and (e) How does innovation and entrepreneurship affect firms, industries, regions and nations?. These questions are complex and difficult to answer. In approaching the questions the course will apply a 'systems of innovation' framework. The inter-linkages between concepts, theoretical explanations, and empirical material will be discussed. In doing so, the course will use state-of-the-art academic research and link this to the more common practice of business life.

TEACHING FORMATS

The course comprises a series of lectures and seminars. Students are expected to read and elaborate the literature before the seminars. In the seminar, the students are expected to be able to discus and reflect upon the articles and integrate them into a wider perspective on research and applied issues of health, lifestyle and entrepreneurship. The assignments will include written hand-ins as well as oral presentations.

COURSE LITERATURE

The literature includes articles and books. An up-dated list will be announced in the course syllabus, a few weeks before the course start. A preliminary list of articles and books includes:

Audretsch, D. (2006) *Entrepreneurship, Innovation and Economic Growth*, Edvard Elgar Publishing Limited.
Bessant and Tidd, J. (2007) *Innovation and Entrepreneurship*, Wiley, England.
Gartner WB, Bird BJ, Starr JA. (1992). Acting as if: Differenting entrepreneurial from organizational behavior. *Entrepreneurship, Theory & Practice* Spring: 13-31.

Sarasvathy, S.D. (2001). *"Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency*". Academy of Management Review, 26(2): 243-263.
Shane, S. (2003). *A general theory of entrepreneurship*. The individual-opportunity nexus. Cheltenham: Edward Elgar Publishing Limited.

Part B) The psychology of exercise and health prevention

Urban Johansson and Catherine Hildingh

Course objectives

The aim of this part of the course is to introduce the students in the principles behind the psychology of exercise and health prevention. This includes a holistic view on innovative and health related issues in social and health sciences.

After completion of the course the student should:

- Be able to identify and describe basic concepts. Especially important concepts included are, psychology, exercise, health, health prevention, and innovation.
- Have developed a deeper understanding of how psychology effects exercise and health prevention
- Have some acquaintance with research in the field

Primary contents

The focus is on psychological issues and its relation to exercise and health prevention. It is expected that the students gain knowledge and understanding of contemporary theories and research about the foundations of psychology, exercise and health prevention. Issues addressed in the course include: 1) in what way does moderate exercise effect health and wellbeing? 2) is it possible to buffer depression with mindfulness training?, 3) is it possible to construct a psychological intervention program to prevent injuries among younger and older persons?, 4) what kind of intervention programs have been used to prevent fall injuries among elderly.

Teaching formats

The course comprises a series of lectures and seminars. Students are expected to read and elaborate articles and in a seminar form discus and reflect upon the articles and integrate them into a wider perspective on research and applied issues of health, lifestyle and innovation.

Course literature

Alexander, C.N., Chandler, H.M., Davies, J.L., Langer, E.J., & Newman, R.I. (1989). Transcendental meditation, mindfulness, and longevity: An experimental study with the elderly. *Journal of Personality and Social Psychology, 57, 6*, 950-964.

Blumenthal et al. (2007). Exercise and pharmacotherapy in the treatment of major depressive disorder. *Psychosomatic Medicine, 69,* 587-596.

Landers, R., & Arent. (2007). Physical activity and mental health. In: G. Tenenbaum, R.C. Eklund (Eds.). *Handbook of Sport Psychology* (3 Ed.) (pp. 469-491). John Wiley and Sons Inc.

Cheung W-H, Mok H-W, Qin L, Sze P-C, Lee K-M, Leung K-S (2007). High-frequency whole-body vibration improves balancing ability in elderly women. *Arch Phys Med Rehabil 88*, 852-857

Wong A.M.K, Lan C. Tai Chi and balance control. (2008). *Med Sport Sci 52,* 115-123.

Sjösten N, Vaapio S, Kivelä SL (2008). The effects of fall prevention trials on depressive symptoms and fear of falling among aged: a systematic review. *Aging Ment Health 12*(1):30-46.

Part C) Digital healthcare

Bertil Svensson and Nicholas Wickström

COURSE OBJECTIVES

The aim of this part of the course is to give a view of how information and communication technology can be used in health and healthcare settings − sometimes referred to as digital health. The main focus is on what type of products and services we can expect to encounter in the future and how they will affect the different stakeholders.

Part C 'Digital healthcare' is a central part of the course "Health (or health-technology), lifestyle and entrepreneurship". The overall ambition is to link 'digital healthcare' with 'Innovation and Entrepreneurship' and 'Lifestyle'. Students are not required to have studied technology prior to this course.

After completion of the course the student:

- Can describe the expected impact of information and communication technologies on health and healthcare in the next 10-15 years.
- Has developed an understanding of how the introduction of technology can influence the different actors, in positive as well as negative ways. Some of the influences regard privacy, reliability, dependability and usability of products and services.

PRIMARY CONTENTS

The course will introduce important concepts in information and communication technology for health promotion and healthcare. Further, it demonstrates possible use of ICT to further develop patient focused healthcare, chronic disease management and ways of supporting an ageing population to independent life. Issues related to the development of products and services such as usability and side effects like privacy and lack of user friendliness are introduced.

The nature of the problems addressed in the field will highlight some of the technology challenges of the future, many of which are open for future research. Examples are: interpretation of human intentions, emotions, adaptation to the user's context, and ethical issues.

TEACHING FORMATS

The course comprises a series of lectures and seminars. Students are expected to read and elaborate on the literature before the seminars. In the seminar, the students are expected to be able to discus and reflect upon the articles and integrate them into a wider perspective of research and applied issues of health, lifestyle and entrepreneurship. The assignments will include written hand-ins as well as oral presentations.

COURSE LITERATURE

The literature preliminarily includes:

Royal Society (2006), "Digital healthcare: The impact of information and communication technologies on health and healthcare," London. Royal Society.

Dishman, E. (2004), "Inventing wellness systems for aging in place," Computer, vol.37, no.5, pp. 34-41.

Coughlin, J.F; D'Ambrosio, L.A.; Reimer, B.; Pratt, M.R. (2007), "Older Adult Perceptions of Smart Home Technologies: Implications for Research, Policy & Market Innovations in Healthcare," Engineering in Medicine and Biology Society, 2007. EMBS 2007. 29th Annual International Conference of the IEEE , vol., no., pp.1810-1815.

Pantic, M., Pentland, A., Nijholt, A., and Huang, T. (2006). "Human computing and machine understanding of human behavior: a survey," In Proceedings of the 8th international Conference on Multimodal interfaces (Banff, Alberta, Canada, November 02 - 04, 2006). ICMI '06. ACM, New York, NY, 239-248. DOI= http://doi.acm.org/10.1145/1180995.1181044

Melander-Wikman, Anita, Ylva Faltholm, and Gunvor Gard (2007), “Safety vs. privacy: elderly persons experiences of a mobile safety alarm.” *Health & Social Care in the Community* (OnlineEarly Articles). doi:10.1111/j.1365-2524.2007.00743.x, 2007.

Eagle, N., & Pentland, A. (2004), “Social Serendipity: Proximity Sensing and Cueing,“ MIT Technical report, http://vismod.media.mit.edu//tech-reports/TR-580.pdf