



GENERAL INFORMATION	
DEGREE PROGRAMME	Degree Programme in Wellness Technology
PERIOD OF EXECUTION	2013-2017
SCOPE	240 ECTS credits
DESCRIPTION	The Degree Programme in Wellness Technology trains technology professionals to design products and equipment that is meant to improve or maintain human wellness. Graduates have the capacity to be able to apply modern technology in terms of product design, in particular in the human-technology interface, as well as in the improvement of health, functional capacity, the operating environment, and fitness.
LANGUAGE OF STUDY	Finnish
CODE	THY13S1
DEGREE	Bachelor of Engineering
DEGREE LEVEL	National Qualifications Framework level 6.
TARGET GROUP AND ADMISSION CRITERIA	See: http://www.jamk.fi/download/38509_JAMK_nuorten_hakijanopas_2013_kevyt.pdf
STUDIES	
KEY LEARNING OUTCOMES	Upon completion of the Degree Programme in Wellness Technology, the students: <ul style="list-style-type: none">- Are capable of continuous self-development, a wide range of communications and information retrieval in various work and cultural environments, as well as possessing a strong ethical foundation and an entrepreneurial attitude in their own field.- Acquire the capacity to act as an entrepreneur.- Are capable of technical computing and understanding the technical documentation, as well as understanding domestic and foreign publications in the technical field and being able to apply them to their own work.- Understand the importance of automation in the global industry, knows the different levels of implementing automation in an industrial plant and is able to design and implement a simple control system.- Have acquired the basics of electrical safety.- Understand the operating principles and the selection criteria of the machine's main components.- Are able to perform sustainability calculations and are able to model machine parts and create working drawings for such calculations.- Have the capability to be able to apply modern technology in product design, in particular in terms of the human-technology interface, as well as in the improvement of health, functional capacity, the operating environment, and fitness.

	<ul style="list-style-type: none"> - Are familiar with the central practical tasks from the point of view of vocational studies in wellness technology as well as being able to apply their new knowledge and skills in working life. - Are motivated to seek additional theoretical knowledge that is applicable to working life. - Are able to work in target-orientated projects that are typical within the industry, both in the capacity of assistants and as operators. - Have the ability to apply the acquired knowledge and skills to specialist tasks that are related to their vocational studies. - Are able to work independently and purposefully and understand the importance of criticality and has creativity and the ability to solve problems. 																																			
<p>PROFILE</p>	<p>The Degree Programme in Wellness Technology trains technology professionals to design products and equipment that are targeted at improving or maintaining human wellness. Graduates have the capability to be able to apply modern technology in everyday working life tasks, in particular in terms of the human-technology interface, as well as in the improvement of health, functional capacity, the operating environment, and fitness.</p>																																			
<p>COURSE STRUCTURE</p>	<div style="text-align: center;"> <p>HYVINVOINTITEKNOLOGIAN KOULUTUSOHJELMA 240</p> <p>op</p>  <table border="1" style="margin-left: auto; margin-right: auto;"> <caption>Course Structure Data (Estimated from Chart)</caption> <thead> <tr> <th>Year</th> <th>Pakolliset perusopinnot</th> <th>Pakolliset ammattiopinnot</th> <th>Vaihtoehtoiset ammattiopinnot</th> <th>Oppinnäyte</th> <th>Harjoittelu</th> <th>Vapaasti valittavat</th> </tr> </thead> <tbody> <tr> <td>1. VUOSI</td> <td>17</td> <td>43</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>2. VUOSI</td> <td>30</td> <td>15</td> <td>15</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>3. VUOSI</td> <td>6</td> <td>24</td> <td>30</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>4. VUOSI</td> <td>30</td> <td>15</td> <td>15</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table> </div> <p>(the figure is explained for students in English)</p>	Year	Pakolliset perusopinnot	Pakolliset ammattiopinnot	Vaihtoehtoiset ammattiopinnot	Oppinnäyte	Harjoittelu	Vapaasti valittavat	1. VUOSI	17	43	0	0	0	0	2. VUOSI	30	15	15	0	0	0	3. VUOSI	6	24	30	0	0	0	4. VUOSI	30	15	15	0	0	0
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COURSE CONTENT AND PERFORMANCE	<p>The course includes basic and vocational studies, elective studies, specialization training, and a graduation thesis.</p> <p>The basic studies include areas such as, for example, the natural sciences, languages, communications, ICT skills, and basic machine technical subjects. The vocational studies focus on product development, user-centred design, and automation.</p> <p>The course shall be completed within two semesters from its beginning. The exception is the graduation thesis, practical training, special working life oriented project studies, as well as extensive courses implemented in a number of semesters. In cases where a course remains incomplete, the student shall re-start it.</p> <p>In the first contact lesson of a course, a review is carried out of the course's learning objectives and content, along with the different procedures and evaluation criteria; additionally, the possible examination date is agreed upon (the immediate time at which this will be carried out) and the course completion date is announced, after which no further attempts are accepted. Students have the opportunity to try to complete a course a total of three times: during the immediate performance of the course or in two specially determined resit exam times.</p>
LEARNING ASSESSMENT	<p>Learning outcomes are assessed in relation to the course's learning objectives. Assessment decisions are based on the evaluation criteria provided in the course descriptions. Courses are assessed on the assessment scale that is specified in the course description. According to its purpose, the scale may be one of five steps: 5 (excellent), 4 (very good), 3 (good), 2 (satisfactory) and 1 (adequate) or a pass (P) or fail (0). The course has been failed (with a fail (0)) if the student does not achieve the minimum outcomes that are set for the completion of the course.</p> <p>Students have the right to know how the evaluation criteria are applied to their skills. Course performance is recorded in the transcript of records no later than one month after the declared point of completion for the course and always before the end of the academic year.</p>
ACCREDITATION AND RECOGNITION OF PRIOR LEARNING (RPL)	<p>The procedures for accreditation are described in the Degree Regulations and in the Study Guide.</p>
MODE OF STUDY	<p>The main method for the performance of the studies is as follows:</p> <p>Contact study as well as distance learning, group work, independent study, online learning, problem based learning, specialization training, project work, entrepreneurial studies, studies supporting internationalisation skills (including courses in English and studies that are carried out abroad).</p>
PROFESSIONAL GROWTH AND KNOW-HOW	<p>During the training, competence is built of profession specific competencies and of the common competence of various professional groups developing transferable skills, in addition to the graduating student's own entrepreneurial skills.</p> <p>Competency areas in the Degree Programme in Wellness Technology where this profession-specific competence for creating joint transferable skills are manifested are as follows:</p> <p>Transferable skills which will help students to become capable of continuous self-development and a wide range of communications and information retrieval in</p>



	<p>various work and cultural environments, as well as providing them with a strong ethical foundation in their own field.</p> <p>Basic technical skills which will help students to become capable of technical computing, will help them to understand technical documentation, will provide them with an understanding of domestic and foreign publications in the technical field, and will allow them to be able to apply these areas to their own work. Students understand the operating principles of the equipment.</p> <p>Machine design capabilities which will enable students to develop and design cost-effective machines and equipment from the point of view of international customers. They will have the ability to make use of modern software and will be able to take into account the strength, materials and manufacturing technical aspects. They will know the basics of actuator technology and will be able to choose the equipment used for this.</p> <p>The skills of the wellness technology sector, enabling the students to understand the most important concepts and key theoretical and professional knowledge from the point of view of wellness technology being able to apply them to their own work for improving the health, functional capacity, operating environment and fitness.</p> <p>User-centred product development capability which will enable students to master the application of modern technology in product design, in particular in the human-technology interface. Students will possess good capabilities for the application of knowledge in terms of usability in product development, in which case they will be able to apply the information to the central set of problems in their professional area.</p> <p>Research and development capability which will enable students to acquire, apply and evaluate data from their own from domestic and international sources. Students are familiar with the research and development techniques and will know how to apply them in accordance with ethical principles. They are able to work in a responsible manner in multi-sectoral work groups, communities and networks which are related to research and development work. Students are able to perform expert communications.</p>
QUALIFICATION REQUIREMENTS AND REGULATIONS	The profession does not have specific eligibility requirements based on legislation.
ADDITIONAL INFORMATION	<p>Students may be charged separately for the cost of materials where such costs correspond to real life acquisitions or production costs in terms of teaching materials, tools, equipment, or supplies that remain in the student's possession after their education has been completed. If a student obtains similar materials from other sources, he or she is not charged for the cost of materials (Government Decree 1230/2009 2 §).</p> <p>Bachelor's degree programme is free for students.</p>
GRADUATION	The requirement for the receipt of the certificate of Bachelor degree is that students complete the studies for their degree programme during the study period in accordance with the personal learning plan (PLP).



	JAMK University of Applied Sciences provides students with a certificate of completion of the Bachelor's degree (210, 240 or 270 ECTS credits). A transcript is attached to the certificate.
EMPLOYMENT AND FURTHER STUDIES	
EMPLOYMENT OPPORTUNITIES	A wellness technology engineer generates and designs products and services that are targeted at improving human wellness. The wellness technology industry is growing, a student may gain a profession title along the lines of product development engineer, person responsible for laboratory equipment, product manager, production manager, product designer, or project engineer.
OPPORTUNITIES FOR POST-GRADUATE STUDIES	<p>After graduation and after about three years of a working life phase, the students of a Bachelor's degree programme can continue their studies in a Master's degree programme. The Master's degree at the University of Applied Sciences is a university level Master's degree. Students can also continue their studies by applying for courses such as, for example, the Master's degree programmes at universities or for an equivalent training course. After the completion of Bachelor's studies it is, of course, also possible to continue in foreign institutions of higher education on the Master's level degree programmes.</p> <p>The University of Applied Sciences also offers continuing education opportunities for specialisation studies, learning agreement type in-service training, as well as in working life based continuing education. If a student graduates from the Master's degree programme, he or she can get the opportunity to continue their studies in the scientific or artistic studies at universities (37 §/558/2009). All further studies must be applied for separately.</p>
OTHER INFORMATION	
HEAD OF THE DEGREE PROGRAMME	Matti Siistonen, programme coordinator, matti.siistonen@jamk.fi, +358 (0)40 749 7162
PROGRAMME PLANNING PROCESS	<p>The Degree Programme in Wellness Technology aims to educate engineers so that they meet the needs of business life. Based on this, the learning objectives of the degree programme have been defined on the basis of the current and future needs of the business life, benefiting from the staff of companies, experts in the field and public and prospective studies. Together with the programme coordinator, the Head of Department is responsible for monitoring the progress of planning the learning objectives for the Degree Programme in Wellness Technology and for the management of resources.</p> <p>The preparation of learning objectives is performed by the working group, which consists of the teachers of the degree programmes. Members of the working group will negotiate with the representatives of business life in their competence area when it comes to the requirements of working life skills. The working group collects the learning objectives needed and determines them for the degree programme.</p> <p>Learning objectives are divided into competence areas and the competencies therein and are included into the structure of the degree programme in the form of various courses. Learning objectives are reviewed by the Advisory Committee, which consists of business life, student members, the Head of Department and the programme coordinator. The Advisory Committee meets regularly and takes a position on the compliance of the degree programme with the skill needs of working life.</p>



SCHOOL	JAMK University of Applied Sciences School of Technology, Degree Programme in Wellness Technology Rajakatu 35, 40200 Jyväskylä
QUALITY MANAGEMENT	JAMK University of Applied Sciences is using the quality management system that has been audited by the Finnish Higher Education Evaluation Council (FINHEEC). Education is developed on the basis of course feedback collected from students. The principles of the curriculum are approved by the JAMK University of Applied Sciences Academic Board and by the Vice Rector of the degree programme specific curriculum.
PEDAGOGICAL PRINCIPLES	The degree programme is implemented in accordance with the pedagogical principles established by the University of Applied Sciences Academic Board. For more information: http://www.jamk.fi/english/aboutus/facts/pedagogical-principles
ETHICAL PRINCIPLES	The students and employees of JAMK University of Applied Sciences operate jointly according to the accepted (by JAMK Academic Board on 15.12.2010) ethical principles. For more information: http://www.jamk.fi/english/aboutus/facts/ethicalprinciples
LAST UPDATE	20.12.2012
CURRICULUM APPROVED	21.12.2012 Heikki Malinen, Vice Rector