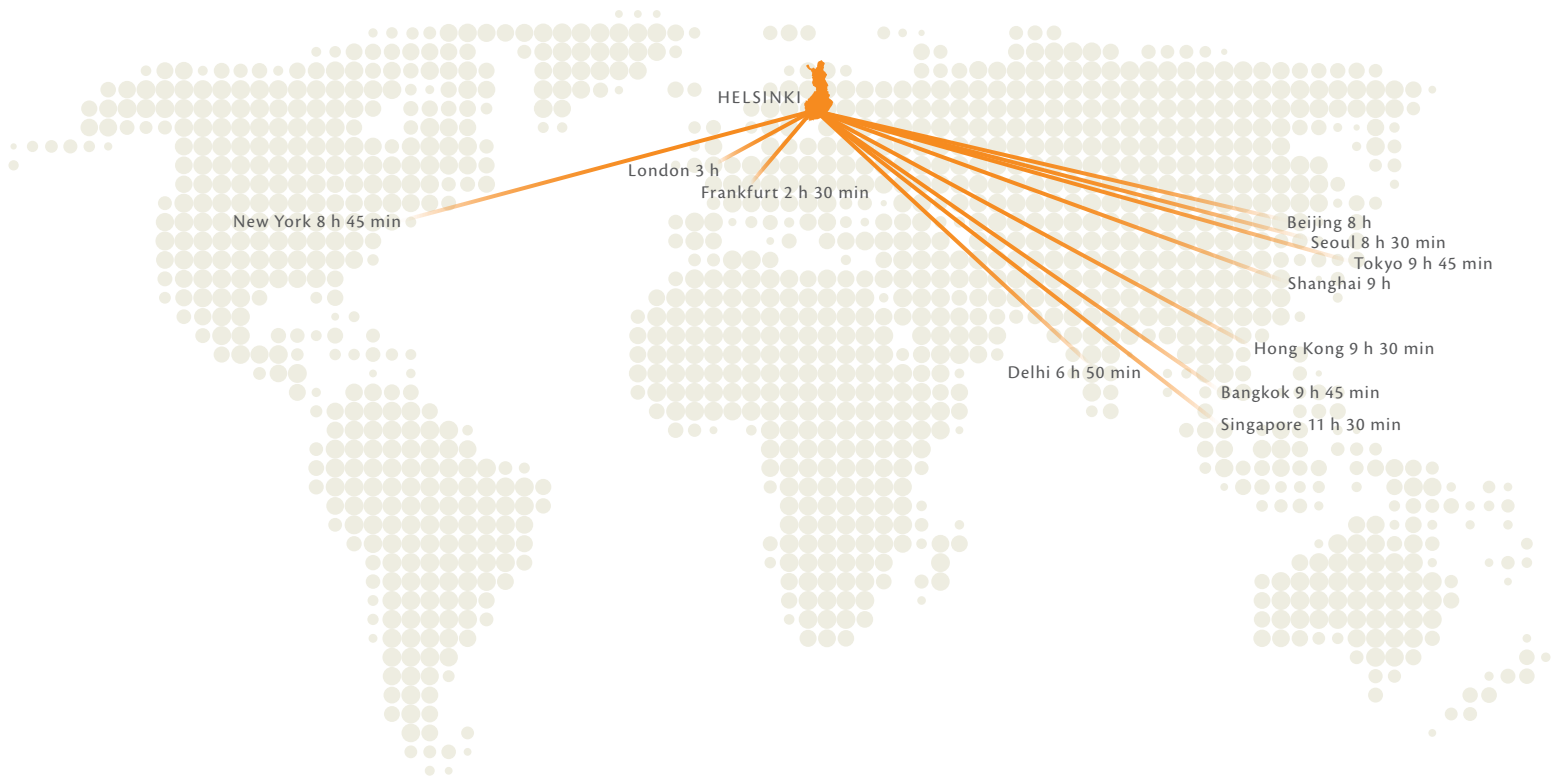




Expertise and insight

for the future

## DIRECT FLIGHTS TO HELSINKI FROM MAJOR CITIES



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## FINLAND EXCELS IN INTERNATIONAL COMPARISONS

Finland is a Nordic country known for its clean and pristine nature. The thousands of lakes, islands and forests that dot its landscape make it a nature lover's paradise. With a climate warmer than its absolute latitude suggests, Finland has four distinct seasons which make it a fascinating place to visit all year round.

Finland is highly integrated in the global economy. The largest industries are electronics, machinery, vehicles and other engineered metal products, the forestry industry and chemicals. Finland is a member of the EU, OECD, UN, WTO and the eurozone.

With only 5.4 million inhabitants, Finland continuously excels in international comparisons of national performance in areas such as education, health care and well-being, political stability, economic prosperity and competitiveness, quality of life and absence of corruption.

In addition to education and a solution-oriented approach, Finland's strengths include clean water and design in everyday life. The capital, Helsinki, was chosen as the World Design Capital for the year 2012.

Bordering Sweden in the west and Russia in the east, Finland is a gateway to both east and west with a unique political history and culture.

## EDUCATION IN FINLAND

The Finnish education system is an egalitarian Nordic system. Private schools are rare and there are no tuition fees for full-time students.

Higher education offers two alternative paths: the traditional research universities and the newer universities of applied sciences. The universities of applied sciences focus on innovation and finding new ways of applying existing research results, usually in joint projects and close cooperation with relevant industries.





"IN METROPOLIA WE ARE  
COMMITTED TO OPENNESS  
AND HIGH QUALITY."

## A PARTNER WITH WHOM YOU CAN LOOK TO THE FUTURE

Do you enjoy creating and innovating with others for the well-being of the community and society at large? Then Metropolia is your partner. In Metropolia we are committed to openness and high quality. The Metropolia community is passionate about expertise and systematically invests in high-quality teaching and cooperation in R&D and innovation.

Metropolia is a multidisciplinary international university of applied sciences, the largest of its kind in Finland. We have operated under the Metropolia name since 2008, following the merger of two major universities of applied sciences. Our staff and students are proud to carry on the long tradition of our predecessors, while at the same time looking firmly ahead to the future.

Metropolia's strengths include our close cooperation with the world of work, our far-reaching involvement in society and our ability to renew ourselves and build reliable partnerships.

Our cooperation networks extend to all continents and our international R&D work is gaining strength. Metropolia has 15 degree programmes taught in English, 10 undergraduate and 5 master's. Metropolia students on the Culture and Arts, Business, Health Care and Social Services and Technology degree programmes can learn together.

Metropolia's students will become talented professionals who have learned to cooperate and embrace challenge. Metropolia graduates find international jobs, fully ready to contribute to working life.

I would like to welcome both our existing and new partners to join our Metropolia's community!

RIITTA KONKOLA  
President



Helsinki Campus



Vantaa Campus in Tikkurila



Vantaa Campus in Myyrmäki

## HELSINKI METROPOLIA UNIVERSITY OF APPLIED SCIENCES IN BRIEF EXPERTISE AND INSIGHT FOR THE FUTURE

- **Helsinki Metropolia University of Applied Sciences**, Finland's largest university of applied sciences, educates the professionals of tomorrow in the fields of culture, business, health care and social services, and technology.
- **In the Metropolia community** people and worlds meet to create insight, expertise and well-being for both the world of work and life in general.
- **You can count on Metropolia** as a reliable partner and an innovator in higher education. Through cooperation we discover new ideas and solutions to build a better future.

### METROPOLIA IN NUMBERS

- 16,000 students
- 2,000 Bachelor and 150 Masters graduates in 2010
- 1,200 staff
- 68 degree programmes, of which 15 taught in English
- 900 foreign degree students, over 80 nationalities
- Budget in 2011: EUR 115 million
- 20 locations
- Owned by: Helsinki 42%, Espoo 27%, Vantaa 26%, Kirkkonummi 4%, Kauniainen 1%
- R&D&I total volume in 2010: about EUR 9.5 million

### VISION FOR 2014

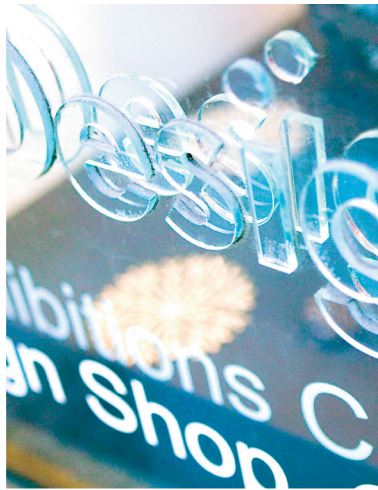
- Metropolia will be Finland's most valued university of applied sciences and the most dynamic learning environment.

### OBJECTIVES

- Finland's best graduation rate in target time
- Flexible processes to enhance renewal ability
- Best teaching in Finland
- Best working place in higher education
- Sought-after partner
- Experts with new ideas in the Helsinki region
- Financial independence

### VALUES

- **EXPERTISE** – our passion
- **HIGH QUALITY** – our target
- **COMMUNITY SPIRIT** – our source of strength
- **TRANSPARENCY** – our operating policy



## BACHELOR'S DEGREE PROGRAMMES IN ENGLISH:

### TECHNOLOGY

#### CIVIL ENGINEERING

4 YEAR PROGRAMME

- focuses on sustainable building engineering
- comprises courses in construction engineering, indoor environment and energy efficiency, life cycle engineering and facility management
- trains construction professionals to be able to work in a variety of building industry jobs
- equips graduates with wide expertise, a general understanding of the theory, practice and methods in their field
- offers three specialisation options: Structural Engineering, Construction and Site Management, and Environmental Construction
- includes a significant number of practical labour market projects starting in the first year and ending in a final project, usually commissioned by Metropolia's partners in the industry
- includes a work placement
- includes an international exchange option of at least four months in the third-year.

#### ELECTRONICS

4 YEAR PROGRAMME

- trains qualified engineers specialised in electronics design
- provides students with practical experience and professional knowledge in the field of electronics
- comprises modules in embedded systems, electronics and EMC, wireless communication and sensors
- consists of theoretical studies combined with practical laboratory and project work in a multicultural environment
- provides hands-on experience in manufacturing circuits and systems
- includes practical on-the-job learning.

Electronics engineers work for example as electronics designers in research laboratories, team leaders in industry and also in sales and marketing positions.

The multicultural study environment fully prepares a graduate of the degree programme for work as an engineer anywhere in the world.

*"My training period at Metropolia offered me the chance to become familiar with very different practical jobs at several workplaces. During the training period, I learned a lot of new things that I'm sure I can utilise in my future work.*

*My tutor was extremely helpful and guided me in practical matters."*

SOFIE EVERAERT – Occupational Therapy student from Artevelde Hogeschool in Belgium, who completed her practical training period at Metropolia

#### ENVIRONMENTAL ENGINEERING

4 YEAR PROGRAMME

- trains environmental engineering professionals in two specialisation areas: renewable energy technology engineering, or waste, water and environmental engineering
- includes contact class teaching, laboratory and project works and supervised independent learning.

An expert of renewable energy engineering understands how bioenergy, wind power, hydropower and solar energy technologies work. A specialist knows how to store and distribute energy efficiently and how to make renewable energy from biomass and waste.

An expert of waste, water and environmental engineering technology knows how to provide clean water and how to treat municipal and industrial waste. A specialist can also design water and waste treatment plants.

Graduates will understand how environmental engineering helps to provide sustainable engineering solutions for the future challenges facing mankind.



*"THE STAFF MEMBERS AND TEACHERS AT METROPOLIA ACT PROMPTLY WHEN I INTRODUCE ANY PROBLEMS TO THEM."*

## INFORMATION TECHNOLOGY

4 YEAR PROGRAMME

- educates internationally competent ICT professionals
- offers three specialisation options: Telecommunications and Data Networks, Embedded Engineering and Software Engineering
- offers the student an excellent opportunity to gain practical experience in mobile communication networks, computer-based measurement systems, real-time systems and network-based project learning
- provides links to working-life throughout the studies in industry-related projects, industrial placement periods and a Final Year Project
- creates opportunities to build networks and plan future career whilst studying
- enhances engineering competence with language, communication and business skills.

## MEDIA ENGINEERING

4 YEAR PROGRAMME

- focuses on technical studies in media technology, computing and data communication
- provides students with basic knowledge and skills in multimedia related design, production and business subjects
- uses the most modern technology of networks and media production in the learning environment
- involves teamwork and cooperation in projects with students from different countries and cultures
- includes an industrial placement of 20 weeks.

Media engineering professionals who have expertise in product design, production processes, communication skills and marketing are highly valued in the communication and publishing industries reshaped by the convergence of digital technologies.

*"One of the most rewarding things while studying at Metropolia is to get friends from all over the world. At the same time you learn to forget, in a good way, your own background, and respect that people from other nations have their own way of doing things."*

STEFANIE LIESE – Studying Construction and Real Estate Management, an international study programme offered by the University of Applied Sciences HTW-Berlin in Germany and Metropolia

## BUSINESS

### EUROPEAN BUSINESS ADMINISTRATION

4 YEAR PROGRAMME

A distinctive double-degree programme run in conjunction with partner universities in the UK, Austria, the Netherlands and France. Students select their partner university during the second year of their studies and do their year abroad in their third year. Students will graduate with two bachelor's degrees, BBA from Metropolia and a degree from the partner university.

- concentrates on the core competences of international business
- includes essential subjects every business professional needs: economics, law, marketing, communication, management, IT, and the European Union
- includes a six-month placement which students are strongly encouraged to complete abroad.





*"This experience in Metropolia has given me skills crucial for international business. The amount of group work we do at Metropolia has allowed me to work with a large number of different personalities and nationalities. It has helped me develop my knowledge and understanding of the world and also my communication skills. The courses are taught in English and the option to take many language courses makes Metropolia an excellent international learning environment."*

ANDREW WOOLLEY – Studying Business Administration at Metropolia as part of a yearlong compulsory placement required in his studies at Northumbria University, UK



*“Metropolia has very good teachers, friendly students and an inspiring atmosphere for practicing and playing music. I have been offered many possibilities to play with good musicians, which has been definitely enjoyable but also challenging.”*

*“Metropolia has excellent facilities. I was impressed to be able to use all kinds of professional machines and learning material related to my future career. During my training period in Lapland, I worked daily at the orthopaedics company owned by my tutor. I even met Santa Claus! I’m planning on travelling there again with my family and friends.”*

TOBY LUI – completed Prosthetics and Orthotics practical training and theoretical studies at Metropolia for his social and health care studies at the Hong Kong Polytechnic University

## EUROPEAN MANAGEMENT

4 YEAR PROGRAMME

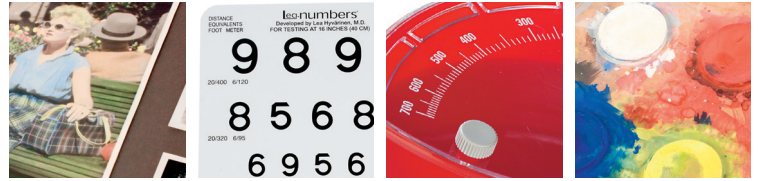
A distinctive double-degree programme run in conjunction with partner universities in the Netherlands, France, Germany, Spain and UK. Students select their partner university during the second year of their studies and will do their year abroad in their third year. Students will graduate with two bachelor’s degrees: BBA from Metropolia and a degree from the partner university.

- concentrates on the core competences of marketing, finance, human resource management and information technology
- specialises more on various aspects of management and leadership in the international arena and topics related to the European Union
- includes a six-month placement which students are strongly encouraged to complete abroad.

## INTERNATIONAL BUSINESS AND LOGISTICS

3.5 YEAR PROGRAMME

- is designed to meet the requirements of today’s global business
- gives students good hands-on knowledge and the ability to work in international logistics, an essential area of the modern business world
- includes subjects such as purchasing, logistics management, supply chain management and project management
- encourages students to complete part of their studies abroad either on study exchange or work placement.



## HEALTH CARE AND SOCIAL SERVICES

### NURSING

3.5 YEAR PROGRAMME

Nursing practice involves promoting health and well-being, preventing illness, restoring health, and terminal care. Students on the programme study in a central location in the capital region which offers students excellent learning opportunities within the health care sector, ranging from primary health care units to highly specialised Helsinki University Hospital clinics. Students can complete part of their studies abroad.

#### GRADUATES OF THE DEGREE PROGRAMME:

- are culturally competent registered nurses
- possess the skills to deliver nursing and health care services to meet the needs of clients from various cultural backgrounds in Finland and abroad, in national and international, governmental and non-governmental organisations
- will be ready to work in multinational and multidisciplinary teams in various parts of the world.

### SOCIAL SERVICES

3.5 YEAR PROGRAMME

- trains specialists who are capable of supporting clients’ daily lives by using social pedagogical working methods. Empowerment is an essential approach in this work
- qualifies graduates to work with various client groups of all ages. The work can be linked for example with child protection, family and youth work, elderly care, early childhood education, disabilities, substance abuse and mental health
- trains specialists for tasks which may consist of supervision, guidance, coordination of services and managerial work in communities or in a residential setting
- qualifies graduates to work in the public, private or third sector in multicultural working environments.

## MASTER'S DEGREE PROGRAMMES IN ENGLISH:

Metropolia's master's degrees are part-time post-experience degree programmes which allow the students to continue working while studying. Applicants must have three years of relevant work experience after completing their Bachelor's Degree.

### INDUSTRIAL MANAGEMENT

#### 1 YEAR PROGRAMME

The Master's degree develops competences in the following areas:

- Services Business, Customers, business models and innovation
- Services in an international context
- Service leadership, organisational development and teamwork
- Service delivery and technology architectures
- Strategic management, intra/entrepreneurship, alliances and venturing.

In the project learning method, studies are integrated into real-life business projects and students can study while working. Master's graduates in Industrial Management are internationally competent management professionals in ICT and service business.

### INFORMATION TECHNOLOGY

The 60 credit programme prepares the student for advanced specialist tasks in international engineering surroundings in the telecommunications and software industries. Specialisation options are: Media Engineering, Mobile Programming and Multimedia Communications. The Final Year Project is 30 credits. On average a student with a daytime job can complete the programme in two years as part-time studies.

The Master's degree gives the student the following competences:

- The latest knowledge in a chosen specialisation option
- Ability to conduct applied research projects
- Information acquisition skills and adaptation of new knowledge
- The latest knowledge in advanced programming
- Problem-solving skills.

*"METROPOLIA IS A GREAT PLACE  
TO MEET PEOPLE FROM DIFFERENT  
CULTURAL BACKGROUNDS."*

### BUSINESS INFORMATICS

Business Informatics is a concept growing in importance.

Professionals with an engineering or business background will build on their expertise through improved information management and better use of information systems.

The programme offers deeper insight into business management areas such as financial analysis, leadership, marketing or logistics, each linked to corresponding IT systems. Thanks to a multicultural student group and lecturers from diverse backgrounds, the scope is very international. Students complete their degree in 1.5–2.5 years.

Each student plans and implements a development project in/for real business life, typically for their work organisation. Students complete demanding R&D projects offered by employers and business developers.

### HEALTH BUSINESS MANAGEMENT

The ageing of the population in many societies will challenge health care systems and processes to produce health care services more efficiently. The Master's Programme in Health Business Management focuses on service, customer, and business-orientation in health care organisations and provides professionals with the business managerial competences required by health care organisations in the future.

The program has a multidisciplinary approach to business management and health care areas such as accounting, leadership, or evidence-based nursing practice and all studies are linked to the health care organisations. Students study on a part-time basis and complete their degree in 1.5–2.5 years.

### EMERGENCY AND CRITICAL CARE NURSING (ERASMUS MUNDUS)

- is the first international joint degree in advanced nursing available in Europe
- offers a highly specialized education in nursing, with an advanced perspective
- combines theoretical teaching, research methodology and activities, communication & management of critical scenarios and advanced evidence-based practice, using state of the art clinical technologies
- is promoted by a consortium coordinated by the University of Oviedo (Spain) and counting with the partnership of Helsinki Metropolia University of Applied Sciences (Finland), the University of Algarve and the Polytechnic Institute of Santarém (Portugal).



## FULL LIST OF DEGREE PROGRAMMES

In several degree programmes taught in Finnish there are tailor-made semesters in English.  
Tuition in English\*

### BUSINESS

#### BACHELOR'S DEGREE PROGRAMMES:

- Economics and Business Administration
- European Business Administration\*
- European Management\*
- International Business and Logistics\*

#### MASTER'S DEGREE PROGRAMMES:

- Business Informatics\*
- Entrepreneurship and Business Competencies
- Supply Chain Management

### CULTURE

#### BACHELOR'S DEGREE PROGRAMMES:

- Conservation
- Cultural Management
- Design (Interior Design, Textile Design, Fashion Design, Industrial Design)
- Fashion and Clothing
- Film and Television
- Media (Graphic Design, 3D Animation and Visualisation, Digital Media)
- Music
- Performing Arts
- Pop/Jazz Music

#### MASTER'S DEGREE PROGRAMMES:

- Conservation
- Cultural Management
- Media Production
- Music

### HEALTH CARE AND SOCIAL SERVICES

#### BACHELOR'S DEGREE PROGRAMMES:

- Biomedical Laboratory Science
- Dental Technology
- Emergency Care
- Geriatric Care
- Nursing (Nursing, Public Health Nursing, Midwifery)\*
- Occupational Therapy
- Optometry
- Oral Hygiene
- Osteopathy
- Physiotherapy
- Podiatry
- Prosthetics and Orthotics
- Radiography and Radiotherapy
- Social Services\*

#### MASTER'S DEGREE PROGRAMMES:

- Clinical Specialist
- Development and Leadership in Health Care and Social Services
- Emergency and Critical Care Nursing (Erasmus Mundus)\*
- Health Business Management\*
- Health Promotion
- Rehabilitation
- Social Services

### TECHNOLOGY

#### BACHELOR'S DEGREE PROGRAMMES:

- Automation Engineering
- Automotive and Transport Engineering
- Biotechnology and Food Engineering
- Building Services Engineering
- Chemical Engineering
- Civil Engineering\*
- Construction Management
- Electrical Engineering
- Electronics\*
- Environmental Engineering\*
- Health Informatics
- Industrial Management
- Information Technology\*
- Laboratory Sciences
- Land Surveying
- Materials Technology and Surface Engineering
- Mechanical Engineering
- Media Engineering\*
- Media Technology

#### MASTER'S DEGREE PROGRAMMES:

- Automation Technology
- Business Informatics\*
- Construction
- Health Business Management\*
- Industrial Management\*
- Information Technology (Media Engineering, Mobile Programming, Multimedia Services and Networks)\*
- Supply Chain Management



## FACULTY EXCHANGE OFFERS NEW PROSPECTS FOR LECTURERS AND STUDENTS

Architect **Virginia Cartwright**, who specialises in interior and lighting design, is on a Fulbright scholarship to Finland, working for one term as a lecturer in the Design Degree Programme of Metropolia's Faculty of Culture and Creative Industries. As an assistant professor at the University of Oregon in the United States, Professor Cartwright became familiar with Finland in her studies, as she is studying Alvar Aalto's architecture from the point of view of lighting design in her thesis.

"I have been coming to Finland periodically many years now. Initially, I came to see the architecture of Alvar Aalto. I have also brought students from the University of Oregon to study architecture in Finland", she says.

At Metropolia, Professor Cartwright teaches in the Interior Design Programme. She has good things to say about cooperation with both students and lecturers.

"My interactions with the students at Metropolia and with the other faculty members have been quite rewarding. The people teaching here are top-notch and their dedication to teaching is impressive. They have demonstrated broad interests in the world of visual and other arts. The students here have been eager to learn and very motivated to become practicing design professionals."

Professor Cartwright thinks the potential for Metropolia to be even more international is great. The calibre of the work being done by the faculty and the students is quite high according to her. "Obviously, the programmes here have much to offer students from other countries", she adds.

In addition to student exchange, Professor Cartwright feels that opportunities for faculty members to teach internationally are a great benefit to all concerned.



## EXCHANGE STUDIES AT METROPOLIA PROVIDE OPPORTUNITIES TO MEET NEW PEOPLE AND DEVELOP PRACTICAL COMMUNICATION SKILLS

Japanese student **Jessie Wanner Kawahara** spent six months as an exchange student at Metropolia. During this time, he worked on his thesis for his alma mater, Sendai National College of Technology. And there may be more studies in Finland in his plans for the near future.

“I would like to be studying for my Master’s or Doctor’s degree at a foreign university, possibly a university in Finland”, says Wanner Kawahara, revealing his plans.

Wanner Kawahara’s field of study is Information Engineering and the title of his thesis is “A reading aid system for English language learners”. Kawahara feels that he has learned most about communication during his exchange studies.

“It’s naturally challenging to try to make progress in research, but the most challenging part is communication. If you cannot express your ideas to others, your research doesn’t proceed”, says Wanner Kawahara.

Wanner Kawahara describes cooperation with Metropolia’s lecturers as fruitful. “Feedback from the teachers has been valuable. Staff members at Metropolia have all been very helpful and kind. They act promptly when I introduce any problems to them.”

“I think that Metropolia is very international. This is a great place to meet people from different cultural backgrounds.”

During his time in Finland, Wanner Kawahara has become familiar with people from many different cultures – especially his Finnish fellow students.

“I have interacted very much with some of the Finnish students. We go swimming, running or partying. They help me take the burden of research off my shoulders once in a while.”

Wanner Kawahara’s Japanese college and Metropolia currently have an agreement that allows students to conduct projects during their exchange studies. Wanner Kawahara, however, would like the agreement to be extended to cover course modules that form a part of his studies.



## WORK IN THE GLOBAL MARKET FEELS ROUTINE AND ENJOYABLE THANKS TO INTERNATIONAL DOUBLE DEGREE

**Ville Frost**, a Finn, has completed two degrees on the European Management Degree Programme: a BA (Hons) degree in the United Kingdom and a Bachelor of Business Administration degree in Finland. Ville Frost completed a part of his double degree at the University of Lincoln in the UK, one of Metropolia's double degree partners. His bachelor's thesis was supervised in Finland but assessed and approved in both countries.

Thanks to his studies, Ville Frost is now used to working in an international environment. "The best way to learn international business is to do it – your instincts will develop gradually. Working in a multicultural setting became very familiar during my studies", he says.

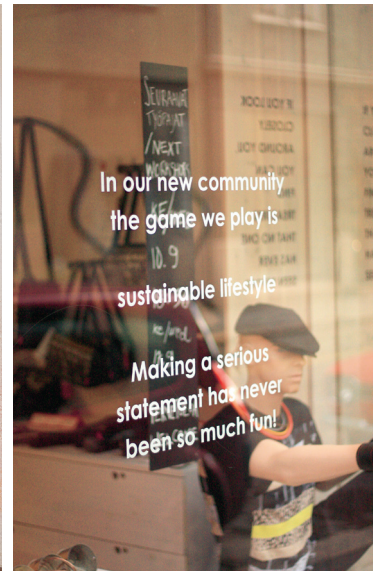
In his degree programme all teaching and learning material is in English. In addition to Finnish and international students there are exchange students in the classes. The lecturers also represent many different nationalities.

"The European Management Degree Programme really showed Metropolia's international side. Students there are able to form a natural network between different countries and nationalities."

At the University of Lincoln Ville Frost majored in International Marketing and Management. His studies landed him in a job with extremely international tasks. He is currently responsible for international sales at Marinetek, a Finnish company who is the leading builder of boat harbours and docks in Europe. The know-how he acquired during his studies has been put to good use, especially in demanding negotiations abroad.

"My studies included a lot of speaking in front of people and preparing presentations in English – and now it's easy for me. My job very much corresponds to what I was trained for", he says.



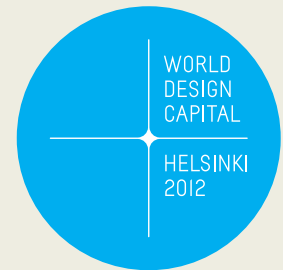


## METROPOLIA – OFFICIAL WORLD DESIGN CAPITAL HELSINKI 2012 PARTNER

Helsinki is the third World Design Capital after Torino in Italy (2008) and Seoul in South Korea (2010). Helsinki Metropolia University of Applied Sciences and the International Design Foundation have agreed on a partnership in the World Design Capital Helsinki 2012 project, with Metropolia becoming one of the official programme providers.

“We are thrilled and proud of being able to work together with the International Design Foundation and contribute our dynamic and extensive expertise to the project. We believe this partnership will further enhance our role in improving wellbeing in the Helsinki metropolitan area, and we want to learn more and get better, too,” says Rector Riitta Konkola.

Metropolia is one of the educational institutions taking part in World Design Capital Helsinki 2012, receiving a visible role for its contribution.



## JOINTLY AND OPENLY TOWARDS A BETTER ENVIRONMENT

Metropolia’s projects related to the Design Capital year put people, ease of use and availability in the forefront. Design planning and implementation is carried out jointly and openly with the locals, aiming for a better environment for us to live in.

Design projects to be implemented within the project include a walking frame for children; Hspace, a project for new spaces for learning and leisure that combine physical and digital presence; and Design for Everyday Mobility, which will create environmentally viable solutions concerning public transport, cycling and pedestrianism, thereby serving city planning, increasing safety and encouraging people to walk, cycle or use more public transport.

“Metropolia is engaged as part of World Design Capital projects in exciting cooperation across a number of sectors with local designers and parties that use design services, such as the public sector and local businesses,” says **Päivi Fredriksson**, Director of the Design degree programme.



User Rankings			
8th	★★★★	0:28.45	Karo
9th	★★★★	0:28.61	Karo
10th	★★★★	0:28.63	Karo
Unranked		1:45.01	Karo

## METROPOLIA IS PROUD TO PRESENT

### THE E-RA ELECTRIC CAR – A WORLD-CLASS FEAT OF ENGINEERING

Metropolia's electric car, Electric RaceAbout (E-RA), is energy efficient, almost noiseless, and produces no emissions locally. While working on the project to build the electric car, Metropolia students combined theory and practice to produce excellent results – working not only on the car's design, but also manufacturing and installing the components assigned to them and being responsible for their functioning.

There are more than 60 partners in this project, the majority of whom are Finnish companies and research institutions. The electric car was designed by Metropolia's Automotive Engineering unit and the Institute of Design at Lahti University of Applied Sciences. Lappeenranta University of Technology also contributed to the electric car by designing new electric motors optimised for vehicle use.

The Electric RaceAbout car performed extremely well in the Progressive Automotive X PRIZE vehicle design competition in the United States in 2010. With almost one hundred teams having entered the competition, Electric RaceAbout came second in the alternative side-by-side seater category. E-RA was described at the competition as a true feat of engineering.

In May 2011, the car won electric vehicle rally and received several other awards in Michelin Challenge Bibendum in Berlin, including prizes for design and energy efficiency. In September 2011, the E-RA set a new lap record for a road legal electric vehicle at the world famous Nürburgring Nordschleife circuit.

Metropolia leads the way in the design of electric cars in Finland. Electric cars are one of the key solutions to current energy consumption and environmental problems.

### AIDWAY LTD PROVIDES EQUAL GAMING EXPERIENCES

Metropolia graduates, Prosthetist-Orthotists **Karoliina Matikkala** and **Katariina Lappalainen**, came up with an idea while they were working on their Bachelor's Thesis. This idea now has a patent pending. Matikkala and Lappalainen's technology and service company Aidway Ltd has developed a new type of prosthetic and orthotic concept, the first of its kind in the world.

Aidway's gaming seat allows people suffering from disabilities or weaknesses in their lower limbs to have an equal console gaming experience. Initially, the product has been made compatible with the Nintendo Wii Fit concept.

The Wii Balance Board can be integrated into the gaming seat, allowing the gamer to control the games by shifting his or her body's centre of gravity. The gaming seat gives everybody an equal opportunity to play Nintendo Wii games with their family or community.

Thanks to the Aidway gaming seat, people with paralysed lower limbs have been able to take to the ski slopes and elderly people have walked on tightropes. People with no disabilities can also train in a completely new way using the seat. The gaming seat is currently used by rehabilitation centres, hospitals, nursing homes for the elderly and health care centres. The product has also been released on the consumer market.



## HEARING THE VOICE OF THE ELDERLY IN THE PLANNING OF THEIR ENVIRONMENTS

About three hundred elderly people suffering from dementing illnesses were able to voice their wishes and opinions in the results of the Project for Developing Care Environments Supporting the Rehabilitation of Elderly People. The project conducted research from elderly people's point of view on what kind of environment would best support their rehabilitation and well-being.

Metropolia carried out the project in cooperation with the customers and residents of two large elderly care centres and their relatives, as well as the employees of the centres. The three-year project also involved the participation of the Sotera Institute of Aalto University's School of Science and Technology.

In their point of view, elderly people see that their well-being and ability to remain active is supported by an environment in which they can carry on with their life and feel that their life is meaningful. The ideal environment would reflect their cultural

backgrounds and offer them the opportunity to spend time outdoors in nature. They would interact socially, participate in social activities and would enjoy both privacy and community. In such an environment, elderly people's changing capabilities would be taken into consideration.

About 900 students in the rehabilitation, social and care work sector worked with the elderly gathering material for the study. In addition to the evaluation tools and operating models created, a significant outcome of the study was the learning gained from cooperation between various experts, such as rehabilitation and care personnel, students and lecturers.

The project's outcomes call for closer cooperation between workplaces and universities in order to learn together about developing environments for the elderly.

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## FINNISH-CHINESE COOPERATION COMBINES E-PAPER AND DIGITAL TELEVISION NETWORK

Metropolia entered into a major cooperation agreement with a Chinese research institute at the Shanghai World Expo in 2010. The Finnish-Chinese research cooperation will develop a new media service platform that combines e-paper with digital TV broadcast networks. The aim is to improve the distribution of information to highly dispersed populations in wide geographical areas.

Cooperation between Helsinki Metropolia University of Applied Sciences, the Finnish Aalto University, and the Chinese research institution National Engineering Research Center of Digital Television (NERC-DTV) will utilise the DigiTV technology expertise of the Shanghai based institution. Metropolia's role is to research and develop a thin, energy-efficient and low-cost

electronic reading device that can receive broadcasts, while Aalto University will research and test new service concepts and business models.

The media service platform being developed will be used to transfer content to the electronic reading device via digital TV technology that currently exists in cities and rural areas. The platform is a cost-efficient solution for distributing news, official announcements, educational material and other content to geographically challenging environments.



*"I think that Metropolia is very international. This is a great place to meet people from different cultural backgrounds. I have interacted very much with some of the Finnish students. We go swimming, running or partying. They help me take the burden of research off my shoulders once in a while."*

JESSIE WANNER KAWAHARA – Working at Metropolia on his Information Engineering thesis for Sendai National College of Technology in his native country, Japan

## **METKA STUDENT UNION ATTENDS TO STUDENTS' WELL-BEING**

Students are at the heart of Metropolia and the METKA Student Union's main mission is to attend to their benefits and well-being both inside and outside the institution.

METKA's active members and employees provide help and advice in matters related to student life. Volunteer student tutors who have been trained by METKA meet incoming exchange students on their arrival from abroad and help them adapt to life in Finland and start their studies.

The Student Union arranges recreational activities, trains tutors and represents the students at various decision-making forums. METKA also offers versatile exercise and sports services at an affordable price.

The Student Union organises activities both in Finnish and English. Language cafés and game nights provide a natural setting for students from different cultural backgrounds to meet. Many students return home with unique memories of trips to Lapland, Russia and Estonia and day-trips to other cities in Finland organised by METKA.

METKA wishes to make studying in Finland and at Metropolia an unforgettable experience!

Read more about METKA's activities at [www.metkaweb.fi](http://www.metkaweb.fi)



Helsinki City Hall next to the harbour

## INTERNATIONAL RELATIONS

Metropolia promotes a learning environment which encourages international cooperation and cultural awareness. Internationalisation is clearly visible in our curricula, student and staff mobility, various projects and internationalisation at home. Our 10 international Bachelor's degree programmes and 5 Master's degree programmes taught in English allow us to host large numbers of incoming exchange students.

- 15 degree programmes in English, tailor-made semesters in English, Summer School
- Over 300 partner institutions around the world
- About 400 exchange students annually from Europe, North America, Africa and Asia
- Nearly 500 students go on long-term exchange programmes every year
- Active outgoing and incoming short-term student and staff mobility through various projects
- Outgoing lecturer and staff exchange: nearly 500, incoming 200
- 900 foreign degree students annually representing nearly 90 nationalities.

INTERNATIONAL PARTNER NETWORK





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