BIOTECHNOLOGY IN HEALTHCARE

A Student Exchange in Science

The EU partner schools

Central Ostrobothnia Polytechnic in Kokkola, Finland.
Umwelt-Campus Birkenfeld, Trier University of Applied Sciences in Birkenfeld, Germany
Athlone Institute of Technology in Athlone, Ireland

Central Ostrobothnia Polytechnic, Kokkola, Finland

The Central Ostrobothnia Polytechnic has departments in four cities: Kokkola, Ylivieska, Pietarsaari and Haapajärvi. Courses are taught in three languages: Finnish, Swedish and English. The degree acquired in the Polytechnic corresponds to university degree.

The Location
Finland is the northernmost country in the world after Iceland but don’t be deterred by the weather. Partly because of the warming influence of the gulf stream, the climate is not as cold as one might think. The city of Kokkola, population 36,000, is a charming harbor town on the Gulf of Bothnia, 300 miles northwest of Helsinki. Today, Kokkola is not only the regional center of Central Ostrobothnia but also the most northerly point of coastal Swedish speaking Ostrobothnia (about 20% of the town’s inhabitants consider Swedish their native language.) Take a walk into the old town with its museums and hundreds of wooden houses from the 17th and 18th centuries. The scenic “Seven Bridges Archipelago Road,” a 25-mile coastal drive connecting Kokkola with Pietarsaari to the south, is breathtaking.

The University

Kokkola is the main branch campus of the Central Ostrobothnia Polytechnic (COP), a network of four institutions that include three other campuses located in Pietarsaari, Ylivieska...
and Haapajärvi. Since the COP’s creation in 1996, international cooperation has been a focus of its outreach program. Currently, there are approximately 200 international students attending the COP, all of whom receive student support through the COP’s International Office staff. The staff assists students with all matters relating to their studies at the COP, including both academic issues and student life issues (accommodations, cross-cultural adjustment, etc.). COP operates in the four different cities of Kokkola, Pietarsaari (Jakobstad in Swedish), Ylivieska and Haapajärvi and offer education at nine different campuses. You can easily reach Kokkola by airplane as there are five daily flights between Helsinki and the airport of Kokkola/Pietarsaari. You can naturally also reach Pietarsaari, Kokkola, Ylivieska and Haapajärvi by train from Helsinki. Each town offers a variety of sports as well as free time activities. For instance, Kokkola (with a population of 36,000) offers a wide range of facilities for sports enthusiasts. Students can choose from a number of activities: aerobics, tennis, volleyball, track & field, swimming, tenpin bowling, golfing, cross-country skiing, ice-hockey and ice-skating.

In terms of culture, Kokkola prides itself on music. It is home to the Central Ostrobothnia Chamber Orchestra. There are also theatres and a cinema. Going out in the evening with friends for a drink or two in one of the town’s numerous restaurants, cafes and pubs is a popular free time activity.

The cities of Pietarsaari, Ylivieska and Haapajärvi each offer their own mixture of leisure activities. Situated by the sea, Pietarsaari (population 21,000) is a truly bilingual town with 55 per cent of its inhabitants speaking Swedish as their native language. Ylivieska (population 13,300) a fast-developing, modern town is situated in the plains of Ostrobothnia on the Kalajoki river. Haapajärvi (population 8,500) which boasts a rich cultural life.

Finns have had a reputation of being shy and modest. However, most people would agree that the national character can be influenced by its growing international status. Many observers perceive Finland of today to be more self-confident, while retaining its traditional modesty, as a result of gaining EU membership in 1995, and playing its part in shaping the future of Europe.

Finish Cuisine has something special for every month and a lot of local specialties. Fish, meat, casseroles, stews and soups are many times served with potato. New potatoes, grilled sausage, smoked fish, forest mushrooms and berries are summer delicacies. Elk, herring, salmon, ham and lutefish are typical dishes at the end of the year.

Finns love their saunas. There are at least 1.6 million saunas in Finland, which is a world record compared to the population of 5.2 million.

**Academic Calendar**

The fall term begins in early September and ends in mid-December and the spring term begins in early January and ends in mid-May. The autumn semester finishes around the 20th of December and the spring term starts after Christmas holidays, usually during the second week of January. The ECTS-system is in use in all courses at COP. Central Ostrobothnia Polytechnic has bilateral agreements with around 110 universities and higher education institutions all over the world.

**Accommodation**

COP does not have any accommodation facilities of its own, but we make the necessary reservations for exchange students and degree students before they arrive. Students are accommodated in furnished student apartments. Every student has his/her own bedroom with a communal kitchen and bathroom. These apartments usually accommodate 2-4 students. Despite the relatively cold Finnish winters the apartments are comfortable and warm thanks to the excellent insulation and central heating systems. Most of the apartment buildings have a sauna and laundry facilities on the ground floor.
**Library services**

The library offers the most up-to-date reference services, as well as access to a wide range of databases on CD-Rom or online, including the Internet. Computers can be used by use of a personal password giving access to electronic libraries and the Internet. The loan period for most material is 14 days. All COP students and teachers have free access to all library services, though small charges are levied for photocopying, telephoning and tele-faxing. Each department has its own computer facilities for students. Each student receives a personal e-mail address.

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**University of Applied Sciences Environment Campus Birkenfeld (Umwelt-Campus Birkenfeld)**

The structure of the Environment Campus Birkenfeld, a branch of Trier University of Applied Sciences, is that of an Anglo-American residential campus. Here, approximately 1,600 students live and learn together as a community.

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**The Location**

Birkenfeld lies at the gate of the “Black Forest” of Germany where the forests of the the Black Forest region meet with the far hill country of Pfinz and Kraichgau. Agriculture and wineries have existed for centuries in this area. Nearby is the famous Moselle River (known as Mosel in German) is approximately 320 mi. (515 km) long. The Moselle River extends through France, Luxembourg and Germany past terraced vineyards and hilltop castles to merge with the Rhine River at Koblenz. The Moselle is joined by the Saar River near Trier and the area is renowned for the beauty of its valleys. Its hillsides are dotted with picturesque villages, castles and lush landscapes. The vineyards that line the slopes of the valley have a long-standing reputation for producing popular German white wines. With a 2,000 year history, Trier is one of the oldest cities in Germany. With an abundance of Roman monuments and ruins, Gothic churches and Baroque palaces, the city has much to offer. Today it is a major southwest German commercial and industrial center. Birkenfeld with the local part Graefenhausen Obernhausen has over 9000 inhabitants and is third biggest municipality of the Enzkreises, is near the “gold city” Pforzheim with its well-known decoration and watch-and-clock-making industry. It is located near major traffic routes (the A8 and B294).

Other nearby towns such as Saarbrücken, the capital of Saarland, offer a whole variety of cultural highlights with a French touch, but also is an old town with an historic castle, as well as the lavish town garden with its splendid flora. Saarbrücken got its name from the Saar bridges (in German: Brücken) nine of which have been preserved up to the present day. Bernkastel-Kues has a population of less than 10,000 inhabitants. The 13th century town gate still stands and there are many beautiful half-timbered houses. These towns have been associated with wine production since Roman times.
famous Moselle Wine Museum is situated here. A favorite respite in the splendor of the Moselle Valley, Cochem has an idyllic setting amid vine-clad hills, overlooked by a magical neo-Gothic castle that was romantically restored in the 19th century.

The University
A university of applied sciences combine academic and scientific knowledge arranged much like they are at university but is tailored to your career choice. Today, universities of applied sciences in Germany are seen as the comprehensive universities of the modern industrial society. The faculty at the universities of applied sciences are comprised of experienced professionals and they offer a flexible, international education. The Umwelt Campus Birkenfeld, established in 1996 is situated at the site of a former US military hospital just outside the town of Birkenfeld. It is within the state of Rhineland-Palatinate, within a 3-minute walk of the local train station, and is particularly suited for putting this concept into practice: It combines urban with rural and traditional with modern features. The cohesive layout, ample living space, research facilities, and a large range of sporting and cultural leisure activities available make the location practically unique.

The campus specializes in studies at the environment, including bioengineering and bioprocessing. In numerous subjects, the knowledge obtained in lectures is deepened in laboratory practical courses. The practical applications extend from process engineering, sewage engineering and energy engineering (involving among other things photovoltaic, wind energy and gas cells), as well as the natural sciences chemistry, physics and microbiology. Ultramodern measuring instruments, reactors and apparatuses are available in the laboratory and pilot facilities.

The Campus maintains a set from intensive relationships with foreign universities, from such countries as France, Great Britain, Ireland and in the USA. The European Credit transfer system (ECTS) is used to rate the courses so they can be integrated problem-free into the study of the international student. The international adjustment is further underlined by intensive language training. The college maintains modern language laboratories where training aids are available for the self-study. International students can also assigned a German-speaking “buddy” who can also help with the social integration into the campus community.

Accommodation
Campus Housing is a modern residence hall complex consisting of seven buildings with 500 spaces which are equipped with one-bedroom, two-bedroom, and four-bedroom apartments. Students enjoy private rooms and bathrooms and share a kitchen and a sitting room per unit. Prices range between € 170 and €250, depending on the size in square meters and the layout, the one-bedroom apartments being the most expensive. Separate laundry facilities are available. In addition to the satellite programs, student housing is equipped with 3 campus-own TV channels which broadcast live programs hosted by the students. A tea and coffee shop offers students the opportunity to enjoy a cup of coffee or tea and a German “Broetchen” or a piece of cake in a friendly and relaxed atmosphere. The campus food store offers natural foods from fair trade.

On their own initiative, students in 1997 started the project “Car Share”. Through Car Share, students can rent small, energy-efficient cars at a very reasonable rate to travel to the nearby towns. The Campus Movie Club also hosts one movie per week at the campus-own movie theater, in addition to broadcasting of important political, cultural, and sporting events. Every year, the campus hosts the legendary “Open Stage” event where students from the “Theater Group” participate in dance, musical and theater productions, comedies, and sketches. The sports programs allow students an opportunity to participate in many sports activities on and off-campus, for instance, soccer, basketball, tennis, swimming, volleyball, softball, self-defense programs, boating, sailing, aviation, body building, running, etc. Every room
Athlone Institute of Technology
Athlone, Ireland

Athlone Institute of Technology, as the first full-scale third-level educational institution in the Midlands, has built on and developed on a considerable tradition of learning and technology in the midlands. In the seventeenth century the midlands experienced the first impact of new scientific learning when Richard Heaton, the father of Irish botany, carried out his fieldwork in Offaly and north Tipperary, and Miles Symner, mathematician and engineer, modernised the fortifications of Athlone. The leading astronomer of the nineteenth century, the third Earl of Rosse, constructed the largest telescope in the world at nearby Birr, Co Offaly.

The Location

Athlone, the centre of Ireland, has a population of over 20,000 people making it one of the largest inland towns in Ireland and it has been a major population centre. It is a thriving town enjoying its central location at the heart of Ireland which makes it easily accessible from most parts of Ireland (it is located on the principal crossing point of the River Shannon between Leinster and Connaught). Athlone is located not far from the famous early Christian Monastery and University of Clonmacnoise which established the tradition of learning and scholar-

ship in the midlands. Athlone is a busy and prosperous town with an abundance of interesting tourist attractions and excellent restaurants catering for all budgets. The left-bank area of town has retained much of its old-world character and is currently being revitalised by an extensive renovation programme. The town has been the location of the All-Ireland Amateur Drama Festival for more than fifty years and the Dean Crowe Theatre in the town has been recently renovated.

A wide range of amenities and services are available within a 20 mile radius of Athlone town. Athlone is an ideal destination for water enthusiasts who may participate in rowing, sailing, cruising, wind surfing, fishing and canoeing on the Shannon and nearby Lough Ree. Cycling, driving and walking trails have also been developed in recent years. Leisure facilities in the area include golf (there are five golf courses with proposed development as a short driving-distance of the town), horse-riding and racing, hunting, tennis, scuba-diving, rowing, sailing, cruising, hockey, camogie, rugby, soccer and gaelic football. Indoor facilities include gyms, swimming pools, bowling, badminton, snooker/pool, indoor soccer, arts, drama and musical societies. Athlone offers a treasure of interesting family-owned, national and multinational shops from which to choose. The Golden Island Shopping Centre, which is located just one mile from the Institute, is the premier Shopping Centre in the Midlands, offering a unique blend of quality stores and a multi-screen cinema complex. The friendship and hospitality which you will experience in Athlone will enhance your time spent at Athlone Institute of Technology.

More information on Athlone can be found at www.athlone.ie
The University

Athlone Institute of Technology was established in 1970. The principal aim of the institute is to provide education and training for the economic, technological, scientific, commercial, industrial, social, and cultural development of the State, with particular reference to the Midlands. The main campus is situated off the Dublin Road approximately 1.5 miles from the town centre. The institute has developed rapidly since its foundation, and to facilitate this growth the original building has been extended on several occasions within its 42-acre landscaped campus. The main campus building currently houses the Schools of Business, Engineering, Humanities and Science; the Library; the Information Technology Centre; the main student canteen facilities and the institute’s administration offices. The John Count McCormack Centre on the main campus is a multipurpose building used as a sports complex, as a venue for student social events, and for large gatherings of the student body such as examinations, freshers’ week exhibitions, registration and graduation. 1999 saw the opening of ‘Scribes’ the Student Social Centre, and the institute’s state-of-the-art fitness suite was opened in late 2000.

The courses offered at the institute reflect the current and future needs of Ireland’s industrial and commercial sectors, while at the same time meeting the highest national and international standards and gaining recognition and exemptions from the appropriate professional bodies.

Accommodation

Private and public bus services operate to, from and within Athlone. A local service exists within the town environs which connects the institute with the town centre and the west-side of town. Bus Éireann and a number of private companies operate a number of services in the region which include local and national commuter services, a number of which have a pick-up point at the institute campus. Athlone is also easily accessible by rail as it is on the main Dublin- Galway, Dublin-Westport and Dublin-Ballina lines.

The institute has a purpose-built modern library which contains 400 study places and has a total book stock of over 28,200 volumes. The library currently subscribes to over 260 print journal titles covering subjects in business, engineering, humanities and science. Information is also available in electronic format. The library subscribes to a number of databases which are accessible through the Internet. InfoTrac Onefile is an example of one such resource. The computer room in the library contains open access PCs and internet access. Photocopiers for student use are also available within the library.

The Information Technology Centre is a centralized service available to all students within the Institute. Currently there are eight general-purpose laboratories consisting of 250 personal computers linked by file servers using an Ethernet network and Window 2000 software. In addition, specialist laboratories are available within the Schools of Engineering and Science.

Off-campus residences are available within walking distance of the institute. Typical costs are given below. Restaurant/canteen facilities are available at the main campus and Northgate Street buildings. The student restaurant(s) and the coffee dock provide a practical and social hub where students and staff from different faculties and departments integrate.
This is a facility available to students of the institute to help them enjoy health and fitness in style and comfort. The fitness suite is situated upstairs from the student social centre and is open for use by students and staff members.

The institute offers the services of its International Office to students. The International Office provides assistance to international students registered with the institute. Further information on the role and services provided by the International Office may be obtained by contacting:

Mary Simpson,
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