

Arctic Mines

Summer School in Finland

July – August 2019

LET'S ENJOY AND LEARN!

Three vivid northern cities (Kajaani, Kemi and Rovaniemi), beautiful nature, and modern mines wait for you in Finland in summer 2019. Did you know that Finland is one of the fastest growing mining regions in the world?

Programme in Kajaani University of Applied Sciences and Lapland University of Applied Sciences:

- orientation work before the intensive period in Finland (3 ECTS)
- four week camp in Finland including expert lectures, workshops, laboratory work, field trips and social programme (10 ECTS)
- final report and feedback (2 ECTS)

OUR TOPIC IN SUMMER 2019: INTELLIGENT MINE TECHNOLOGY

Virtuality and reality in mining operations

- Overview on mining industry in Finland
- Modern mining automation
- Virtualization of mining education
- Fieldtrip in Terrafame Ni-Zn-Cu-open pit mine (www.terrafame.com)
- Participation in KAMK's joint r&d -projects with industry

Work Safety and Environmental Safety in Mining

- Mine safety protocols in Finnish mining industry
- Finnish geological properties and the most important minerals in Finland
- Environmental effects in metal ore mining
- Fieldtrip in Gold Prospecting site in Lemmenjoki River
- Participation in Lapland University of Applied Sciences joint r&d -projects with industry

Closing seminar with certificate award ceremony

PRACTICAL INFORMATION:

HOW TO APPLY:

Fill application form in Arctic Mines -web site. Deadline for applications is **March 29, 2019.**

www.kamk.fi/arcticmines
www.lapinamk.fi/arcticmines

VENUES, ACCOMMODATION, COSTS:

There will be student accommodation provided during the intensive period in the cities of Kajaani, Kemi and Rovaniemi in Finland. The cost will be approx. 1650 € including study fee, service package and taxes. The service package includes accommodation for four weeks, student lunches in KAMK and Lapland University of Applied Sciences campuses during the study days, and social program.

Kajaani University of Applied Sciences (KAMK) is a publicly owned limited liability company with more than 250 employees and 2000 students offering higher education, supporting professional growth and carrying out research and development activities. KAMK is a nationally appreciated R&D partner working closely with industry and being active in international co-operation. The School of Mechanical and Mining Engineering of KAMK (KAMK-MME) provides higher education, and research and development services for industry in mechanical engineering. KAMK-MME has five specialization areas, one of them is mining and mineral processing. KAMK is only university in Finland offering such an education and R&D (in co-operation with Lapin AMK). Since 2012 R&D at KAMK-MME has focuses on circular economy, i.e. exploitation of industrial by-products as new materials. www.kamk.fi/en

Lapland University of Applied Sciences carries out a mission to provide vocational oriented university education and conducts research, development and innovation work that especially serves Lapland. We have 500 employees and 5500 students in three different campuses. Our profile is knowledge of the arctic environment. Knowledge of the Arctic environment refers to comprehensive management and utilization of the conditions. Success in Arctic conditions and utilizing the conditions is at the core of the profile of Lapland UAS. Arctic area offers safe and profitable operating environment for global mine operators. Lapland University of Applied Sciences works in close co-operation with the companies in the field of education, research and development.

MORE INFORMATION:

Risto Oikari

*PhD.(tech), eMBA, Principal Lecturer
Kajaani University of Applied Sciences
risto.oikari@kamk.fi
www.kamk.fi/arcticmines*

Rauno Toppila

*MSc.(tech), Project Manager
Lapland University of Applied Sciences
rauno.toppila@lapinamk.fi
www.lapinamk.fi*



LAPIN AMK
Lapland University of Applied Sciences

Arctic Mines

芬兰暑期班

2019 年 7 月至 8 月

让我们尽情享受，努力学习！

2019 年夏天，三个充满活力的北方城市（卡亚尼、凯米和罗瓦涅米）、美好的自然风光和现代化的矿山在芬兰静候您的到来。您是否知道芬兰是世界上发展最快的矿区之一？

卡亚尼应用科技大学和拉普兰应用科技大学的课程：

- 强化期前的芬兰迎新活动（3 个欧洲学分互认体系学分（ECTS））
- 芬兰四周夏令营活动，包括专家讲座、研讨会、实验室工作、实地考察和社会项目（10 ECTS）
- 总结报告和反馈（2 ECTS）

2019 年暑期课题：智能采矿技术

采矿作业中的虚拟和现实

- 芬兰矿业概览
- 现代采矿自动化
- 矿业教育虚拟化
- Terrafame Ni-Zn-Cu 露天矿实地考察 (www.terrafame.com)
- 参与 KAMK 和产业界的联合研发项目

矿业的安全生产与环境安全

- 芬兰矿业的采矿安全协议
- 芬兰的地质特性和最重要的矿物
- 金属矿石开采的环境影响
- 莱门河淘金地的实地考察
- 参与拉普兰应用科技大学和产业界的联合研发项目

结业研讨会和证书颁授典礼

实用信息：

如何申请：

登录 Arctic Mines 网站填写申请表。申请截止日期为 2019 年 3 月 29 日。

www.kamk.fi/arcticmines
www.lapinamk.fi/arcticmines

地点、住宿、费用：

强化期内，芬兰的卡亚尼、凯米和罗瓦涅米等城市将提供学生宿舍。费用约为 1650 欧元，其中包括学费、服务套餐和税款。服务套餐包括为期四周的住宿、学习期间在 KAMK 和拉普兰应用科技大学校园的学生午餐以及社会项目。

卡亚尼应用科技大学 (KAMK) 是一家公有的有限责任公司，拥有 250 多名员工和 2000 名学生，提供高等教育、支持专业发展并开展研发活动。KAMK 是一个举国赞誉的研发合作伙伴，其与业界密切合作，并积极参与国际合作。KAMK 的机械与采矿工程学院 (KAMK-MME) 为机械工程行业提供高等教育和研发服务。KAMK-MME 专注于五个专业领域，其中一个为采矿和矿物加工。KAMK 是芬兰唯一一所提供此类教育和研发服务的大学（与拉普兰应用科技大学合作）。自 2012 年以来，KAMK-MME 一直将研发重点放在循环经济，即开发工业副产品作为新材料。www.kamk.fi/en

拉普兰应用科技大学秉承的使命是提供职业导向的大学毕业教育，并开展主要服务于拉普兰的研发和创新工作。我们拥有 500 名员工和 5500 名学生，他们分布于三个不同的校区。

我们的优势是对北极环境的了解。了解北极环境指对其条件的综合管理和利用。在北极环境条件下取得成功并利用该等条件，这便是拉普兰应用科技大学的优势核心。北极地区为全球矿山运营商提供了安全且可盈利的运营环境。拉普兰应用科技大学携手教育和研发领域的公司，开展密切合作。

更多信息：

Risto Oikari
博士（技术）、高级工商管理硕士、首席讲师
卡亚尼应用科技大学
risto.oikari@kamk.fi
www.kamk.fi/arcticmines

Rauno Toppila
理学硕士（技术）、项目经理
拉普兰应用科技大学
rauno.toppila@lapinamk.fi
www.lapinamk.fi/arcticmines



LAPIN AMK
Lapland University of Applied Sciences