



A Online based Certificate Course between EAWAG and BITS Pilani

BITS Pilani
K K Birla Goa Campus

01/12/2017

SRIKANTH MUTNURI

Goa - India



Birla Institute of Technology and Science – Pilani (BITS Pilani)



Pilani campus



Dubai campus



Goa campus



Hyderabad campus

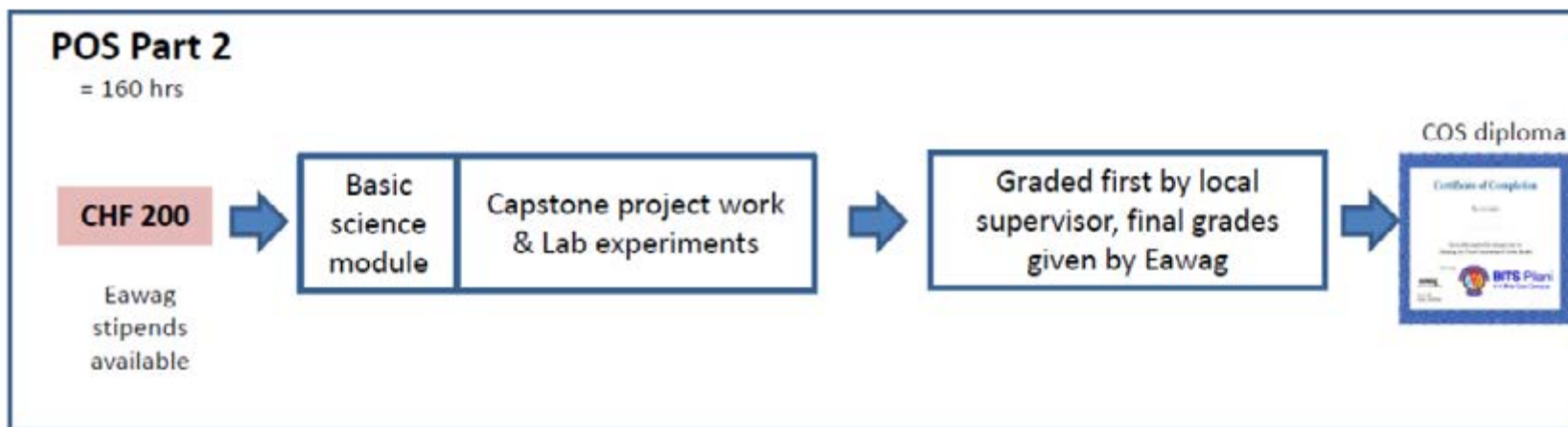
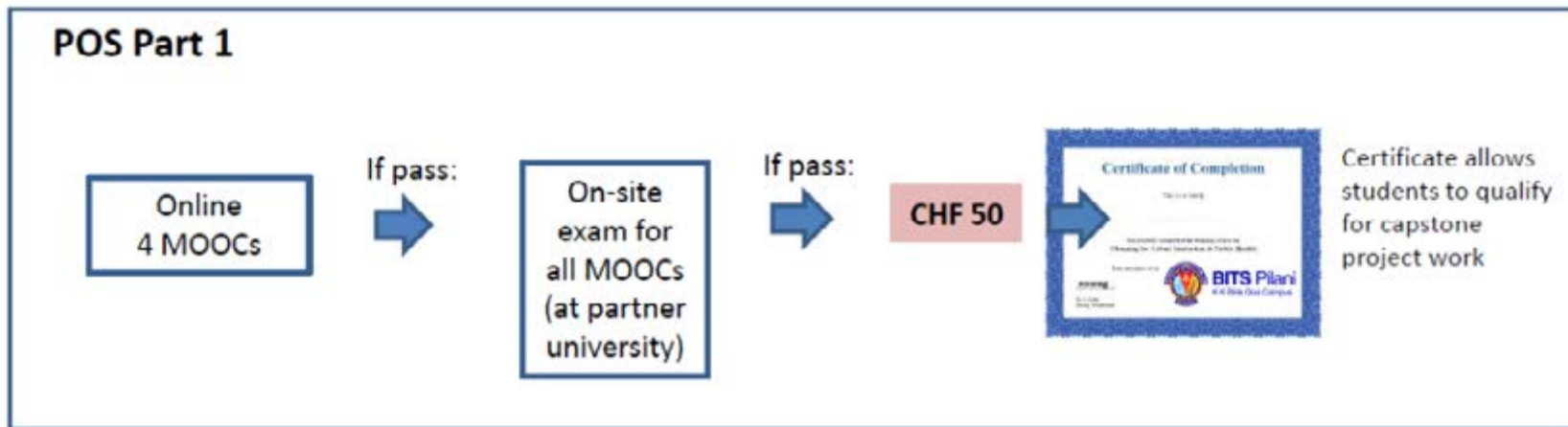


General information



The Swiss Federal Institute of Aquatic Science and Technology (Eawag) in Switzerland and the Applied Environmental Biotechnology Laboratory, Department of Biological Sciences at Birla Institute of Technology and Science – Pilani (BITS – Pilani) K K Birla Goa campus are jointly offering this Programme of Open Studies (POS) “Water, Sanitation and Solid Waste Management”.

Eawag MOOC course



Part 1 – MOOCs & on-site exam

BIO F 216 course Water, Sanitation and Solid Waste Management



Part 1 – MOOCs & on-site exam – BIO F 216

The first part focuses on online knowledge building via MOOCs (Massive Open Online Courses). The course code is BIO F216 and the course name “Water, Sanitation and Solid Waste Management”. Students will complete all four MOOCs of the series “Water, Sanitation and Solid Waste Management” and sit for an onsite exam (Mid semester and Comprehensive examination) at BITS Pilani K K Birla Goa campus.

3 credits for Part 1 at BITS Pilani

Course content



Between August and December we will cover the topics Solid Waste Management, Sanitation, water treatment and faecal sludge management. We expect you to watch all videos and read the recommended further readings before attending the meetings.

August 2017 - Solid Waste Management:

Do you think that solid waste management is an urgent matter in need of sustainable solutions? In this course, you will learn about the elements of a solid waste management system, the main solid waste management challenges in low- and middle-income countries, and tips on how to find solutions. All of this together with numerous real examples from around the world.



Municipal Solid Waste Management In Developing Countries

Dr. Christian Zurbrugg

September 2017 - Sanitation:

Do you want to learn how to plan affordable and context-specific sanitation solutions? In this course you will learn about state-of-the-art sanitation planning approaches and best practice examples of urban sanitation.



Planning & Design of Sanitation Systems and Technologies

Dr. Christoph Lüthi

October 2017 – Faecal Sludge Management:

This course focuses on what can be done to work toward solutions for faecal sludge management in low and middle income countries. It includes the following topics: introduction to faecal sludge management, integrated engineering design approach for technologies, integrated approach for sustainable implementation, and innovation in the sector.



Introduction to Faecal Sludge Management

Dr. Linda Strande

August 2017 - Water treatment:

In this course you will learn about the most important water treatment methods at the household level, successful implementation strategies and about assessing the impact of Household water Treatment and Safe Storage (HwTS).



Introduction to Household Water Treatment and Safe Storage

Dr. Sara Marks & Dr. Richard Johnston

Evaluation



	First Semester	Second Semester
Last date for Registration	August 1	January 6
Mid Semester Examination	October 9 -14	March 5 -10
Comprehensive Examination	December 1 -12	May 1 -12

Evaluation components:

Quiz -20%

Mid sem – 40%

Compre - 40%

Visit to Solid waste treatment plant



100 ton per day Solid waste treatment plant in Goa, India

Visit to Sewage treatment plant

treatment plant -



SBR based treatment plant at Mall De Goa – biggest shopping mall in Goa, India

Part 2 – Capstone project



BIO F217 Laboratory for Water, Sanitation and Solid Waste management

The second part consists of a basic science module, Laboratory experiments and a capstone project, i.e. an independent research project. Upon successful completion, Students will earn a certificate issued by Department of Biological Sciences and Eawag.

3 credits for Part 2 at BITS Pilani

Challenges



- There were initial teething problems wherein it took students to understand that they can do the quizzes again, if they had not done it well earlier or if they had missed the dates.
- Should be considered for ECTS as well.
- Senate approval for Capstone project.

Highlights



- Course approved by senate in May 2017
- 27 students registered for this course in August 2017
- 4 students withdrew from the course as they felt that the course is intense.
- Apart from the quizzes, we have evaluation component of a mid semester onsite examination and a comprehensive onsite examination to clear the course.
- Site visits

Future



- Offering for Working professionals
- Offering as a minor programme for on campus students



University – Industry Linkage



Off-Campus
Work-Integrated Learning
and
Collaborative Programmes

University – Industry Linkage



Work-Integrated Learning and Collaborative Programmes

[20,000 students on roll | 30,000 students graduated]
33 Organizations | 24 Degree Programmes





THANK You