

## Ecology and Environmental Control Systems

Semester 7

The course introduces the basic principles and applications of environmental systems: acoustics, lighting, HVAC, energy use, and their integration with the building envelope. It also highlights the performance of building envelope materials and assemblies, as well as sustainable design principles and applications.

Students learn the basic principles and applications of environmental systems

Code	No.	Course	L	E	P	ECTS
ARCH	701	Ecology and Environmental Control Systems	2	0	0	3

## Legislation, Professional Practice and Contracts

Semester 7

This course introduces types of architecture firms, design process management, business management of architecture firms, architects' administrative role, architecture practice stakeholders, legal aspects, building codes, ethics, professional judgment, social responsibility and the leadership role of architects in project delivery. The course also involves types of contracts, fees, bidding, and construction supervision; in addition to types of contracting agreements and guarantee against construction flaws using case studies.

Code	No.	Course	L	E	P	ECTS
ARCH	701	Legislation, Professional Practice and Contracts	2	0	0	3

## Design Studio V

Semester 7

This design studio focuses on complex projects: a large cultural building, a large housing block, a multi-functional building complex, projects with complex urban context or a small project with focus on construction detailing. Several urban design and architectural design projects will be offered to the students to choose from. Integrated design project, including the integration of many disciplines: urban design, architectural design, building physics, working drawings and construction detailing.

Students are able to design a complex project with multi-functions within an urban context. They are able to address the multiple links between the spatial structure and the urban pattern.

Code	No.	Course	L	E	P	ECTS
ARCH	703	Design Studio V (selected urban and architectural design projects)	1	8	0	15

## Introduction to Project Management / Construction Management (PM/CM)

Semester 7

This course explores different approaches for assessing project products and produced services. In addition, techniques for evaluating schedule and cost performance are practiced and variance analysis and earned value analysis are explained. Other topics such as quality control and risk monitoring are discussed and change control systems and procedures are explained. Students learn how to prepare focused progress reports and conduct effective project meetings. Finally, they learn about the requirements of closing out contracts and procurements and learn how to conduct a post-project review.

Students learn how to monitor time schedules and control project activities in progress and how to bring a medium-sized project to closure.

Code	No.	Course	L	E	P	ECTS
PMCM	701	Introduction to Project Management / Construction Management (PM/CM)	2	4	0	6

## Introduction to Urban Economics

Semester 7

This course introduces the definition of economics, the economic problem and its elements. It deals with the tools of economic analysis and defines urban economics on the city level. Topics include: the carrying capacity of the city, urban productive capacity of the city, external economic factors of a project, internal economic factors of a project, the economic constraints in a city, economies of public infrastructure, economies of road network, housing economies, the relationship between the housing sector and the complementary economic sectors, housing supply and demand and the general economic dimensions of the housing problem.

Students understand the basic concepts of economics and how they relate to city planning and the built environment in general.

Code	No.	Course	L	E	P	ECTS
UP	701	Introduction to Urban Economics	2	0	0	3