

COURSE OUTLINE

Course Code	AUTH2
Course Title	Impact of Metro construction on the long term sustainability of a Metropolitan city: The case of Thessaloniki
Course Address	Faculty of Engineering Aristotle University Thessaloniki, Greece
City	Thessaloniki
Minimum year of study (<i>absolute superior education level</i>)	3 rd , 4 th and 5 th year (5 th year = 3 ^{ème} année Grande Ecole)
Minimum level of English :	high, good, average, weak
Key words	Metro systems, sustainability, construction, building environment
Language (in which the Course will be taught)	English
Professors Responsible	Emer. Prof. Aris Avdelas Telephone: (+30)2310-995784 e-mail: avdelas@civil.auth.gr Assoc. Prof. Anastasios Sextos Telephone: (+30)2310-995697 e-mail: asextos@civil.auth.gr
Participating Professors & Tutors	A. Avdelas, G. Konstantinidis, S. Melidis, C. Anagnostopoulos, S. Argyroudis, K. Pitolakis, C. Pyrgidis, K. Stylianidis, A. Sextos, A. Giannakou, I. Politis, P. Papaioanou, G. Tsegas, N. Moussiopoulos, P. Savvaidis, K. Petrousatou
Number of places:	36
Minimum	10
Maximum	36 places in total = 8 Home & 28 non-Home students
Reserved for Home students	8
Objectives	To provide the theoretical and practical background required for undergraduate students in order to gain an improved understanding of both the financial, managerial and technical difficulties related to the construction of a new Metro system and its overall consequences to the city sustainability.
Programme to be followed	4 morning lectures of 4 hours each and 4 evening lectures of 2 hours each and 6 hours of site visit.
Prerequisites	Basic knowledge of civil engineering
Course exam	Web-based e-evaluation on the last day of the course and a set of questions to be answered after the end of the course



Impact of Metro construction on the long term sustainability of a Metropolitan city: The case of Thessaloniki

Detailed Programme to be Followed

Thessaloniki, March 11-18, 2017

SATURDAY 11/03	Arrival
SUNDAY 12/03	European Dimension Activities: Visits to Museums. City Tour
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MONDAY 13/3	OVERVIEW OF THE METRO PROJECT – SITE VISIT
10:00-10:05	Welcome Address. A. Avdelas, Professor Emeritus, Aristotle University Thessaloniki
10:05-11:15	Overview of the Thessaloniki Metro Project. G. Konstantinidis, Dr Civil Engineer, THESSALONIKI METRO
11:30-12:30	Visit of the construction site in front of the New Railroad Station.
14:30-15:30	Visit of the construction site in front of the Student Restaurant.
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TUESDAY 14/3	GEOTECHNICAL AND SOIL-STRUCTURE INTERACTION ASPECTS
09:00-11:00	Innovative construction techniques of the Thessaloniki Metro S. Melidis, Civil Engineer, Aristotle University Thessaloniki Ch. Anagnostopoulos, Professor, Aristotle University Thessaloniki
11:00-13:00	Principles for the seismic design and vulnerability assessment of metro tunnels The case of Thessaloniki metro line. S. Argyroudis, Dr. Civil Engineer, Aristotle University Thessaloniki K. Pitilakis, Professor, Aristotle University Thessaloniki
15:00-17:00	TRANSPORTATION ASPECTS (1/2) Urban railway systems – Basic characteristics of Metro systems - Metro systems in Greece. Ch. Pyrgidis, Professor, Aristotle University Thessaloniki
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WEDNESDAY 15/03	IMPACT OF CONSTRUCTION TECHNIQUES ON CULTURAL HERITAGE
09:00-10:30	Effect of Metro tunnelling on the structural integrity of Thessaloniki monuments. K. Stylianidis, Professor Emeritus, Aristotle University Thessaloniki A. Sextos, Associate Professor, Aristotle University Thessaloniki
10:30-13:00	Alternative solutions to preserve the Byzantine antiquities while retaining the operability of the Venizelou - Thessaloniki Metro station Ch. Anagnostopoulos, Professor, Aristotle University Thessaloniki A. Sextos, Associate Professor, Aristotle University Thessaloniki
15:00-17:00	URBAN PLANNING ASPECTS Urban planning aspects of Thessaloniki Metro construction A. Giannakou, Associate Professor, Aristotle University Thessaloniki
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THURSDAY 16/03

09:00-11:00

TRANSPORTATION ASPECTS (2/2)

Thessaloniki Metro: contribution to the sustainability of the city agglomeration.

I. Politis, Assistant Professor, Aristotle University Thessaloniki

P. Papaioannou, Professor, Aristotle University Thessaloniki

11:00-13:00

ENVIRONMENTAL ASPECTS

Environmental implications of the Metro construction

G. Tsegas, Research Associate, Aristotle University Thessaloniki

N. Moussiopoulos, Professor, Aristotle University Thessaloniki

15:00-17:00

LAND PLANNING AND MONITORING ASPECTS

Deformation Monitoring of Underground Technical Works

P. Savvaidis, Professor, Aristotle University Thessaloniki

FRIDAY 17/03

09:00-11:00

WORKSITE MANAGEMENT ASPECTS

Construction, operation and maintenance management of underground projects

K. Petroutsatou, Assistant Professor, Aristotle University Thessaloniki

11:00-13:00

Metro worksite health and safety measures (Exact title to be confirmed)

Thessaloniki Metro Staff Member

15:00-17:00

Exams, discussion and feedback

SATURDAY 18/03

European Dimension Activities: Excursion to the Vergina and Dion archaeological sites

