SHORT COURSE: PROJECT RISK MANAGEMENT AND PUBLIC PRIVATE PARTNERSHIPS

DEPARTMENT OF CIVIL ENGINEERING • 05-09 SEPTEMBER 2022

COURSE PRESENTERS

Prof. Jan Wium
Dr. Nthatisi Khatleli
Dr. Vic Prins
Contractor

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FEES

Normal Bird
5-days - R10 000
(Individual days - R2 500)

Early Bird
5-days - R8 000
(Individual days - R2 000)

ECSA CPD POINTS

1 point per day

Registration close

26 August 2022

Early Bird registration close

05 August 2022

CONTACT

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COURSE DESCRIPTION

A short course on Project Risk Management and PPP will be presented from 05-09 September 2022 at the Division of Construction Engineering and Management at the Department of Civil Engineering, Stellenbosch University.

OBJECTIVES

The objective of the course is to provide delegates with an understanding of the principles and concepts of risk management as performed by all parties involved in construction projects. Qualitative risk management as regularly performed in industry is addressed, but delegate are also made aware of more advanced quantitative techniques such as Monte Carlo analyses and decision trees.

A full day is allocated to principles and risk in Public Private Partnerships

LANGUAGE

The course will be presented in ENGLISH

WHO SHOULD ATTEND

The course is aimed at persons in the construction industry who need a firm understanding of construction risks and the role procurement models. Representatives from client organizations, consultants and construction firms will all benefit from the course. Younger members from the industry will benefit from the qualitative principles of risk management and the role of procurement models. More experienced members will benefit from advanced risk methods and from the PPP component.

COURSE ARRANGEMENTS

The course will be presented on-line. Electronic versions of course material will be made available.

CLICK HERE TO REGISTER

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DEPARTMENT OF CIVIL ENGINEERING • 05-09 SEPTEMBER 2022

DAY 1

- Risk management according to ISO 31000 and the Project Management Body of Knowledge (PMBOK)

- Typical construction risks as perceived by different project participants (client, consultant, contractor)

- Compilation of a risk register, prioritization matrices, management and monitoring of risks based on a quantitative approach.

DAY 2

- Case study: Delegate participation

- Design for safety

DAY 3

- Probability theory and decision trees

- Monte Carlo analyses

- Industry software

DAY 4

- Managing risk through procurement models

- Contractual risk and risk apportionment

- Industry presenters discuss contractor and consultant risks

DAY 5

- **Public Private Partnerships** (full day - introduction and overview)

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Department of Civil Engineering
Stellenbosch University

Project Risk Management
5 to 9 September 2022

Date	Time	Lecture topic	Lecturer
5/09/22	08h30	Introduction	Prof JA Wium
	08h30	Introduction to Risk management, risk types	Prof JA Wium
	09h30	Risk Management Frameworks and Models (1): (ISO 31000), Class group discussions in-between	Prof JA Wium
	10h30	Risk Management Frameworks and Models (2) (ISO 31000), Class group discussions in-between Case study nr 1	Prof JA Wium
	11h30	Risk Management Frameworks and Models (3) (PMBOK) Class group discussions in-between Case study nr 1	Prof JA Wium
	12h45	Lunch	
	14h00- 14h15	Risk Management Frameworks and Models (cont.)	Prof JA Wium
	14h15	Risk Management Frameworks and Models (cont.) Risk encountered by construction project participants: Client's risk, Contractor's risk, Consultant's Group exercise: Client's risk (Case study nr 2)	Prof JA Wium
	15h15	Project participants: Client's risk, Contractor's risk, Consultant's Group exercise: Contractor risk (Case study nr 2)	
	16h15 - 17h00	Project participants: Client's risk, Contractor's risk, Consultant's Group exercise: Consultant risk (Case study nr 2)	
	Evening assignment	Group exercise (students): Denver International Airport case study	

Date	Time	Lecture topic	Lecturer
6/09/22	08h30	Risk management process	Prof JA Wium
	09h00	Case studies: Compilation of risk register, cause and effect, prioritizing, management: Group work	Prof JA Wium
	11h00	Group work feedback	Prof JA Wium
	11h45	*Gautrain risk management*	*Prof JA Wium*
	12h45	Lunch	
	14h00	Design for safety: Building works	Prof JA Wium
	15h00	Variety of topics: Discussion of research papers on risk related matters followed by class discussion	Prof JA Wium
	15h45- 17h00	Student presentations and feedback on DIA case study (evening assignment)	Student groups

Date	Time	Lecture topic	Lecturer
7/09/22	08h30	Introduction to basic probability theory and statistics	Prof JA Wium
	09h30	Decision trees: Theory & examples	Prof JA Wium
	10h20	Tea/coffee break	

Date	Time	Lecture topic	Lecturer
	10h45	Decision trees: Value of information & Assignment	Prof JA Wium
	12h35	Lunch	
	13h15-15h00	Risk Management: A consultant's perspective	Dr Vic Prins
	15h15-16h30	Risk Management: A contractor's perspective	*Contractor*

Date	Time	Lecture topic	Lecturer
8/09/22	08h30	Introduction and welcome	Prof JA Wium
	08h40	Introduction to procurement models and the relationship between risk and procurement	Hannes Marais
	10h20	Tea/coffee	
	10h45	Contractual risk and risk apportionment	Hannes Marais
	12h35	Lunch	
	13h30-15h00	Monte Carlo method: Simulation theory and modeling	Prof JA Wium
	15h00-15h15	Tea/coffee	
	15h15-16h00	Monte Carlo method: Sourcing expert opinion, common mistakes, interpreting the output	Prof JA Wium
	16h00-17h00	Presentation of risk management software: @Risk	Will vd Merwe (Palisade)
	16h30	Closure	

Date	Time	Lecture topic	Lecturer
9/09/22	08h30	Introduction to PPP Contextual Nuances in Structuring a PPP in South Africa	Dr Nthatisi Khatleli
	10h20	Tea/coffee	
	10h45	Contextual Nuances in Structuring a PPP in South Africa	Dr Nthatisi Khatleli
	12h35	Lunch	
	13h15	Understanding the Nature of PPPs and the latest international developments	Dr Nthatisi Khatleli
		Understanding the Nature of PPPs and the latest international developments	Dr Nthatisi Khatleli
	15h05	Tea/coffee	
	15h20-17h00	Understanding the Nature of PPPs and the latest international developments	Dr Nthatisi Khatleli
	17h00	Closure	