

Tutorial letter 101/3/2018

Management Civil I

MCL1501

Semesters 1 & 2

Department of Civil and Chemical Engineering

IMPORTANT INFORMATION:

This tutorial letter contains important information
about your module.

CONTENTS

	<i>Page</i>
1 INTRODUCTION	3
2 PURPOSE OF AND OUTCOMES FOR THE MODULE.....	3
2.1 Purpose	3
2.2 Outcomes	3
2.3 ECSA Graduate Attribute	4
3 LECTURER(S) AND CONTACT DETAILS.....	4
3.1 Lecturer(s)	4
3.2 Department.....	5
3.3 University	5
4 MODULE-RELATED RESOURCES	5
4.1 Prescribed books	5
4.2 Recommended books	6
4.3 Electronic Reserves (e-Reserves).....	7
4.4 Library services and resources information	7
5 STUDENT SUPPORT SERVICES FOR THE MODULE	7
6 MODULE-SPECIFIC STUDY PLAN	7
7 MODULE PRACTICAL WORK AND WORK-INTEGRATED LEARNING	7
8 ASSESSMENT	8
8.1 Assessment criteria.....	8
8.2 Assessment plan	8
8.3 General assignment numbers	8
8.3.1 Unique assignment numbers	8
8.3.2 Due dates for assignments	9
8.4 Submission of assignments	9
8.5 Assignments	11
9 OTHER ASSESSMENT METHODS	17
10 EXAMINATION.....	17
11 FREQUENTLY ASKED QUESTIONS	17
12 SOURCES CONSULTED	17
13 CONCLUSION.....	17
14 ADDENDUM.....	17

1 INTRODUCTION

Dear Student

Some of this tutorial matter may not be available when you register. Tutorial matter that is not available when you register will be posted to you as soon as possible, but is also available on *myUnisa*.

2 PURPOSE OF AND OUTCOMES FOR THE MODULE

2.1 Purpose

The aim of this course is to introduce students to the general composition of the civil engineering industry such as the typical parties involved in construction projects and contract documents. The course further introduces students to all the basic management functions, and covers topics such as project management, human resources management, financial management, and many more.

2.2 Outcomes

- COMPOSITION OF THE CIVIL ENGINEERING INDUSTRY
- PARTIES INVOLVED IN THE CONSTRUCTION INDUSTRY
- TYPES OF CONTRACTS
- TENDER AND CONTRACT DOCUMENTS
- THE PROJECT MANAGER
- PRINCIPLES OF GENERAL MANAGEMENT
- PRINCIPLES OF PROJECT MANAGEMENT
- HUMAN RESOURCE MANAGEMENT
- MANAGING PEOPLES
- MANAGEMENT MATERIAL
- MANAGEMENT EQUIPMENT
- OFFICE AND SITE ADMINISTRATION
- PRODUCTION AND OPERATIONS MANAGEMENT

- TOTAL QUALITY MANAGEMENT
- SAFETY MANAGEMENT
- ACCOUNTING, ECONOMICS AND FINANCIAL MANAGEMENT BASICS
- TIME VALUE OF MONEY AND CAPITAL BUDGETING

2.3 ECSA Graduate Attribute

To satisfy ECSA Graduate Attribute 7, the students must demonstrate knowledge and understanding of the impact of engineering activity on the society, economy, industrial and physical environment, and address issues by analysis and evaluation.

3 LECTURER(S) AND CONTACT DETAILS

3.1 Lecturer(s)

Your tutor is **MS G.S Modise**

Tel no: 016 950 9409

Email : modiseglory@gmail.com

Contact Times: Monday to Fridays
10h00 to 12h00

Functions of the Subject Tutor:

- Enquiries about technical content.
- Set assignments
- Mark assignments
- Set assignments
- Mark examination papers

Under no circumstances should the tutor be contacted with regard to examination dates, results or receipt of assignment or assignments marks.

Please contact the following departments:

Exam department for exam related queries: exams@unisa.ac.za

Assignment department for assignment mark queries: assign@unisa.ac.za

Dispatch department for study material queries: Despatch@unisa.ac.za

3.2 Department

Department of Civil and Chemical Engineering

Unisa (Florida Campus)

Private Bag x6

Florida

1710

Phone: 011 471 2048/3132

Use the general E-mail address: civil&chemical@unisa.ac.za

Find our department on the Internet at the online address: <http://www.unisa.ac.za>

3.3 University

<http://www.unisa.ac.za>

4 MODULE-RELATED RESOURCES

4.1 Prescribed books

Management for engineers, Technology & Scientist, Nel WP,
JUTA.

ISBN 13: 0 7021 7161 1

ISBN 13: 978 7021 7161 1

Second Edition

Editor: W P Nel

Management for Engineers, Technologists and Scientists

The relationship between the chapters of the first and second edition of the book is summarized in the table below:

1 st edition	2 nd edition
Chapter 1 - introduction	Chapter 1 – the environment in which technical people work
Chapter 2 - principles of general management	Chapter 2 - principles of general management
Chapter 3 – the business environment	Chapter 17 – business and technology

and strategic management	strategy
Chapter 4 – human resource management	Chapter 3 – human resource management
Chapter 5– managing labour relations	Chapter 4 – the impact of employment relations and labour legislation on an organization
Chapter 6 – managing people	Chapter 5 – managing people and teams
Chapter 7 – marketing : the principles	Chapter 11 – marketing for technical people
Chapter 8 – law of contract	Chapter 6 – engineering contracts and law
Chapter 9 – production and operations management	Chapter 7 – operations management
Chapter 10 – total quality management	Chapter 8 – total quality management
Chapter 11 – introduction to safety management	Chapter 9 – introduction to safety management
Chapter 12 maintenance management	Chapter 10-maintenance management
Chapter 13 – principles of project management	Chapter 13 – principles of project management
Chapter 14 – managing technology and knowledge	Chapter 18 – managing technology and innovation
Chapter 15 – the engineer , user of information systems	Chapter 12 – the engineer , user of information and communication systems
Chapter 16 – accounting , economics and financial management basics	Chapter 14– introduction to accounting , economics, financial management and budgeting
Chapter 17 – operational budgeting and cost estimation	Chapter 15 – cost estimating, cost engineering and cost management
Chapter 18 – time value of money and capital budgeting	Chapter 16 – introduction to time value of money and project selection
Chapter 19 – entrepreneurship	Chapter 20 – entrepreneurship
	Chapter 19 - an overview of environmental management and sustainable development concepts for management practices

4.2 Recommended books

There are no recommended books for this course.

The Study Guide should for Management Civil I should be your first and foremost study resources.

4.3 Electronic Reserves (e-Reserves)

All course materials are available on myUnisa <https://my.unisa.ac.za> under the module course code under Materials. Discussion forums are set up by your lecturer and available for discussions with your peers <https://my.unisa.ac.za>. Some additional electronic resources are available from the Library site (via www.unisa.ac.za). You may electronically “post or upload your assignments in line with the guidelines explained in the booklet:

4.4 Library services and resources information

For brief information go to: *my Studies @Unisa* brochure

For more detailed information, go to the Unisa website: <http://www.unisa.ac.za/>, click on Library

For research support and services of Personal Librarians, go to:
<http://www.unisa.ac.za/Default.asp?Cmd=ViewContent&ContentID=7102>

The Library has compiled numerous library guides:

- find recommended reading in the print collection and e-reserves -
<http://libguides.unisa.ac.za/request/undergrad>
- request material - <http://libguides.unisa.ac.za/request/request>
- postgraduate information services - <http://libguides.unisa.ac.za/request/postgrad>
- finding , obtaining and using library resources and tools to assist in doing research
http://libguides.unisa.ac.za/Research_Skills
- how to contact the Library/find us on social media/frequently asked questions -
<http://libguides.unisa.ac.za/ask>

5 STUDENT SUPPORT SERVICES FOR THE MODULE

Important information appears in your *my Studies @Unisa* brochure.

6 MODULE-SPECIFIC STUDY PLAN

Use your *myStudies @Unisa* brochure for general time management and planning skills.

7 MODULE PRACTICAL WORK AND WORK-INTEGRATED LEARNING

There are no practicals for this module.

8 ASSESSMENT

8.1 Assessment criteria

- Assignment 1 is a multiple choice assignment
- Assignment 2 is a written assignment (online submission only)
- Your exam will be a written venue based examination

8.2 Assessment plan

This course is part of a semester system.

Use your myStudies @Unisa brochure for general time management and planning skills.

8.3 General assignment numbers

Assignments are numbered consecutively per module, starting from 01

8.3.1 Unique assignment numbers

FIRST SEMESTER	
Assignment 1:	671830
Assignment 2	691432
SECOND SEMESTER	
Assignment 1:	730790
Assignment 2	682799

8.3.2 Due dates for assignments

THE CUT-OFF SUBMISSION DATES FOR THE ASSIGNMENTS ARE :	
FIRST SEMESTER	
Assignment 1: (Compulsory)	23 March 2018
Assignment 2	20 April 2018
SECOND SEMESTER	
Assignment 1: (Compulsory)	24 August 2018
Assignment 2	21 September 2018

8.4 Submission of assignments

Note: The cut –off dates given here are the official, last dates on which a given assignment may be submitted. Students must adhere to these dates only. All other dates referring to cut-off submission dates for assignments, as may be posted on myUnisa or elsewhere, refers to administrative dates as managed by the Assignments Department and does NOT influence or change the above dates

Website

Please note that the department has a web site where additional information on the department and the modules are available.

The address is:

<http://www.unisa.ac.za/Default.asp?Cmd=ViewContent&ContentID=19740>

Tutorial Letters are available from the myUnisa website. (See *my Studies @ Unisa*)

Should you encounter any problems in submitting an assignment on myUnisa, you may contact the help line at: myUnisaHelp@unisa.ac.za

Plagiarism

An assignment is designed to be a product of your own study and your own thought. It is not intended to be a piece of work which merely reproduces details, information or ideas from a study guide, from books or articles, or from the Internet.

If you do this, you commit plagiarism. Plagiarism is the act of copying word for word *with or without acknowledgment* from study sources (e.g. books, articles, the Internet).

In other words, you must submit your own ideas in your own words, sometimes interspersing relevant short quotations that are properly referenced.

Yes, simply copying a few pages from the prescribed book is plagiarism. Pasting paragraphs from Wikipedia into your assignment is plagiarism. And it does not stop being plagiarism if you mention the source.

Skilled scientific writers can use direct block quotations to make a specific point. They know what they are doing. You still need to develop your own voice, your own style of arguing the point. Do not plagiarise.

Note that you also commit plagiarism if you copy the assignment of another student. We do encourage you to work together and form study groups, but you are expected to prepare and submit your own assignments.

When we receive two or more identical assignments, we are not able to work out who copied from whom. We will therefore penalize both students.

If you commit plagiarism you will be penalized and given no marks for your assignment. This will have a serious effect on your chances to succeed in your studies because you will have no semester mark.

Furthermore, you may be penalised or subjected to disciplinary proceedings by the University. Plagiarism is also an offence in terms of the law.

A Signed Declaration

Every essay-type assignment we receive must include the following declaration along with your name and the date:

<p>“I declare that this assignment is my own work and that all sources quoted have been acknowledged by appropriate references”.</p>

We **will** subtract marks if this declaration is absent from your assignment, just as we will subtract marks if your assignment does not have a Table of contents, List of references cited, and so on.

8.5 Assignments

FIRST SEMESTER ASSIGNMENT 1

Please answer the following Questions on the Mark Reading Sheet

1. Which of the following is not one of the most frequently used requests to render services.
 - 1 Request to submit a proposal.
 - 2 Request to submit the bill of quantities.
 - 3 Request to tender.

2. Two types of contract based on the arrangement between the parties are:
 - 1 Build-operate-transfer (BOT) contract, lump sum contract.
 - 2 Lump sum contract, reimbursement contract.
 - 3 Management contract, Build-operate-transfer (BOT) contract.

3. Which of the following statements are true?
 - 1 The contractor will always enter into contracts with the suppliers on behalf of the employer.
 - 2 The promoter does not to enter into contracts with the suppliers.
 3. Sometimes the promoter has to enter into contracts with the suppliers.

4. Which of the following statements is false under the disadvantages of selective invitations?
 - 1 Much time is taken up and lost through the placing of notices in the press.
 - 2 Bidders knowing other members on the list may negotiate with one another.
 3. Lists are still too long.

5. Environmental engineering deals with:
 - 1 The effects that development might have on the affected communities.
 - 2 The conservation of natural resources.
 - 3 Both of the above.

6. In preparing the tender document :
- 1 Sealed tenders are opened in public.
 - 2 Various parties have to prepare different sections of the document.
 - 3 The promoter states his requirements.
7. Typical criteria for adjudication bids includes:
- 1 Technical contents of the Bidding price.
 - 2 Bidding price.
 - 3 All of the above.
8. Which statement is false?
- 1 Annuities is a series of equal payments made at fixed intervals for a specified number of periods.
 - 2 Interest is the price paid to borrow debt capital.
 - 3 Inflation is the process of evaluating specific investment decisions.
9. What is the relationship between a contractor and a subcontractor.
- 1 Subcontractors are under the contract to the main contractor.
 - 2 The promoter enters into a contract with the engineer to design.
 - 3 The engineer is powerful and responsible for the whole project.
10. Which statement is false?
- 1 The performance bond is issued by a Bank or Insurance Company
 - 2 The performance bond undertakes to pay a specified sum if the contractor fails to discharge his obligations satisfactorily.

[20 marks]

FIRST SEMESTER ASSIGNMENT 2

QUESTION 1

- 1.1 What is the relationship between a contractor and a subcontractor? (5)
- 1.2 There are three basic contractual arrangements, namely the traditional arrangement and package arrangement. Discuss. (10)
- 1.3 Traditionally there are three main parties involved in Civil Engineering projects. List and describe these three parties. (12)

[27 marks]

QUESTION 2

2.1 Explain the following types of civil engineering contracts:

- a) Lump sum contract. (2)
- b) Management contract. (2)
- c) Target cost. (2)
- d) Cost plus fixed fee. (2)
- e) Cost plus fixed percentage fee. (2)

2.2 Discuss five factors that affect the choice of civil engineering contract. (13)

[23 marks]

QUESTION 3

Discuss how to evaluate a risk assessment done by a safety professional.

[12 marks]

QUESTION 4

- 4.1 Differentiate between Human Resource Function and Human Resource Planning. (8)
- 4.2 Differentiate between “orientation” and “induction”. (6)

[14 marks]

QUESTION 5

Discuss the importance of an adequate site accounting system and give examples.

[10 marks]

QUESTION 6

Briefly discuss what you understand by the following terms:

- a) The time value of money concept. (7)
- b) Simple and Compound Interest. (7)

[14 marks]

TOTAL MARKS: 100

END OF FIRST SEMESTER ASSIGNMENTS

SECOND SEMESTER

ASSIGNMENT 1

Please answer the following Questions on the Mark Reading Sheet

1. Which of the following is not an example of the professional skills of Project Manager.
 - 1 finance and cost Engineering.
 - 2 flexibility and adaptability.
 - 3 inflation and cost escalation.

2. The four fundamental management functions are:
 - 1 Planning, Arranging, Constructing and Engineering
 - 2 Planning, Leading, Project Managing and Performance
 - 3 Planning, Organising, Leading and Controlling.

3. Which of the following statements is true?
 - 1 the work Breakdown Structure defines the hierarchy of the project task, subtasks and work packages.
 - 2 the work Breakdown Structure refers to the parties directly involved in the project .
 3. the work Breakdown Structure refers to the different phases of a project from identification up to completion.

4. In preparing a tender document, the project Manager is responsible for compiling the.
 - 1 Conditions of contract and form of tender
 - 2 Specifications and Drawings
 - 3 Bill of Quantities

5. Environmental engineering deals with:
 - 1 the effects that development might have on the affected communities.
 - 2 the conservation of natural resources.
 - 3 both of the above.

6. The main Contractor is the business entity under contract to the:
 - 1 Engineer
 - 2 Client
 - 3 Private Sector

7. Is there a difference between Group and Team:
 - 1 true.
 - 2 false.

8. The main types of contracts based on payment methods are:
 - 1 lump sum – and measurement contracts.
 - 2 lump sum – measurement – and cost-reimbursement contracts.
 - 3 measurement – and cost-reimbursement contracts.

9. Which of the following pairs is not a specialisation of civil engineering?:
 - 1 Architectural & Quantity Surveying
 - 2 Construction & environmental
 - 3 Structural & Transportation

10. A lump sum contract is one in which the contractor carries out the work:
 - 1 for a fixed tendered sum of money.
 - 2 at actual cost plus a fixed fee.
 - 3 at actual cost plus a percentage fee.

[20 marks]

SECOND SEMESTER ASSIGNMENT 2

QUESTION 1

List and briefly describe the 7 fields of specialization within the Civil Engineering Industry.

[15 marks]

QUESTION 2

Discuss the guidelines engineers should follow to promote sound human relations in the workplace.

[20 marks]

QUESTION 3

List 9 factors that an engineer or engineering team has to consider when designing a new product.

[9 marks]

QUESTION 4

List and describe the 7 guidelines for creating successful budgets and budgetary processes.

[20 marks]

QUESTION 5

- 5.1 List seven cost items that should be taken into consideration when hiring plants and equipment: (7)
- 5.2 List the considerations, which should be taken into account when planning and mobilizing the utilization of plant and equipment. (10)

[17 marks]

QUESTION 6

Define a business plan, also refer to the main uses of the document.

[20 marks]

TOTAL MARKS: 101

END OF SECOND SEMESTER ASSIGNMENTS

9 OTHER ASSESSMENT METHODS

None

10 EXAMINATION

Use your *my Studies @ Unisa* brochure for general examination guidelines and examination preparation guidelines.

EXAMINATION INFORMATION FOR MANGEMENT CIVIL: I (THEORY) (MCL1501)	
Type of examination	Closed book
Examination Language	English
Calculators allowed - Memories of programmable calculators must be cleared in the presence in invigilator prior to start of the examination	Yes

11 FREQUENTLY ASKED QUESTIONS

The *my Studies @ Unisa* brochure contains an A-Z guide of the most relevant study information.

12 SOURCES CONSULTED

N/A

13 CONCLUSION

Wishing you success in your studies.

14 ADDENDUM

N/A