

A black and white photograph of a group of students in a presentation room. They are standing around tables displaying various projects, including posters and electronic circuits. The students are engaged in conversations and looking at the displays. The room has large windows in the background.

APRESENTAÇÃO DA DISCIPLINA

MODELAÇÃO E ANÁLISE DE SISTEMAS | TP 1

ILÍDIO OLIVEIRA ico@ua.pt
v2018-02-15

universidade de aveiro
departamento de eletrónica,
telecomunicações e informática



Recursos da Unidade Curricular

Sítio da disciplina ([Moodle](#))

Disponibilização de materiais e avisos

Entrega de trabalhos

Dossier pedagógico

Do que vamos falar e como funciona a UC

Elementos de avaliação

Calendário da disciplina

Programa das TP e P



curso > Engenharia Informática

apresentação objetivos candidatura plano curricular **acreditações**

1º 2º 3º ano | plano completo

1º ano > 1º semestre	a.c.	ects
Álgebra Linear e Geometria Analítica	M	6
Elementos de Física	F	6
Cálculo I	M	6
Introdução às Tecnologias Web	I/Ctp	6
Fundamentos de Programação	I/Ctp	6
1º ano > 2º semestre	a.c.	ects
Modelação e Análise de Sistemas	I/Si	6
Cálculo II	M	6
Matemática Discreta	M	6
Introdução à Arquitetura de Computadores	I/Asc	6
Programação Orientada a Objetos	I/Ctp	6
Total ECTS:		60

MAS é uma introdução às **atividades de análise e especificação de sistemas de software**

Análise de sistemas

Disciplinas relacionadas com a caracterização do problema e especificação da solução técnica

Processo de desenvolvimento

Método sistemático de trabalho. Define atividades, papéis e subprodutos

Construção de modelos

Linguagem visual Unified Modeling Language – UML

Ferramentas CASE (computer-aided software engineering)

E.g.: VisualParadigm

Periodic Table of Software Engineering

The following table is my personal collection of most important and fundamental elements of software engineering. It may serve as a guideline what a software engineer or programmer should learn, know and most of them practice. Some are small topics and/or methods, others are huge knowledge areas..

1 Re
Requirements Elicitation

3 Ra
Requirements Analysis

11 Ar
Atomic Requirements

19 Rt
Requirements Attributes

37 Rr
Requirements Reviews

55 Tm
Traceability Management

87 Rem
Management of Requirements Portfolio

4 Dc
Component Design

12 Dbd
Database Design

20 Dp
Design Patterns

38 Ap
Architecture Pattern

56 Lsd
Large-scale System Design

88 Dn
Design Notations

21 Sc
Scrum

29 Pac
Parallel Computing

39 Ka
Kanban

49 Cco
Code Comments

57-71 Agile Methods

89-103 Soft Skills

23 Bi
Basics of ITIL

31 Cp
Code Peer Reviews

41 Do
DevOps

49 Cco
Code Comments

72 Pc
Program Comprehension

104 Mp
Maintenance Planning

25 Ad
Algorithm Design

33 Se
Service Testing

43 Ds
Data Structures

51 Pt
Performance Testing

74 Ade
Automated Deployment

105 Tdm
Test Data Management

26 Ol
Object Oriented Languages

35 Rt
Requirements Management Tools

44 Fi
Functional Languages

53 Ide
Integrated Development Environments

75 Aop
Aspect Oriented Programming

106 Tdm
Test Data Management

27 Scb
Software Security Basics

36 Prb
Project Management Risks

45 Eb
Encryption Basics

54 Est
Estimation

76 DI
Declarative Languages

108 PI
Procedural Languages

28 Scc
Scientific Computing

38 Ap
Architecture Pattern

46 Dbs
Database Systems

56 Lsd
Large-scale System Design

78 Dis
Distributed Computing

110 MI
Machine Learning

29 Pac
Parallel Computing

40 Rv
Reverse engineering

47 Gat
Game Theory

59 Td
Test Driven Development

80 Pac
Parallel Computing

111 Ai
Artificial Intelligence

30 Nm
Numerical Mathematics

42 Bm
Build Management

50 Cm
Complexity Metrics

62 Cy
Continuous Delivery

82 Cc
Code Coverage

112 Sdp
Software Development Process

31 Cp
Code Peer Reviews

44 Fi
Functional Languages

52 UI
Usability Labs

64 Bam
Backlog Management

84 Tt
Test Automation Tools

114 Dea
Dependency Analysis

32 Vm
Volume Metrics

46 Dbs
Database Systems

54 Est
Estimation

66 Sm
Stand-up Meeting

86 Mt
Mocking Tools

116 Mt
Mocking Tools

33 Se
Service Testing

48 Rob
Robotic Basics

56 Lsd
Large-scale System Design

68 No
No Overline

88 Dn
Design Notations

118 Pcs
Project Scheduling

34 Ua
User Acceptance

50 Cm
Complexity Metrics

60 Dd
Definition of Done

70 Ti
Travel Light

90 Ts
Training Skills

120 St
Stop Talking

35 Rt
Requirements Management Tools

52 UI
Usability Labs

62 Cy
Continuous Delivery

72 Pc
Program Comprehension

92 Crr
Creation of Relationships

122 St
Stop Talking

36 Prb
Project Management Risks

54 Est
Estimation

74 Ade
Automated Deployment

84 Tt
Test Automation Tools

94 Ns
Negotiation Skills

124 St
Stop Talking

37 Rr
Requirements Reviews

49 Cco
Code Comments

59 Td
Test Driven Development

69 Co
Collect Code Ownership

99 Gom
Good Manners

129 St
Stop Talking

38 Ap
Architecture Pattern

51 Pt
Performance Testing

61 Cd
Continuous Integration

71 Sr
System Manager

101 Im
Intrinsic Motivation

131 St
Stop Talking

39 Ka
Kanban

53 Ide
Integrated Development Environments

63 Us
User Stories

73 Mo
Monitoring

103 Mpa
Measurement of Activities

133 St
Stop Talking

40 Rv
Reverse engineering

55 Tm
Traceability Management

65 Sm
Stand-up Meeting

75 Aop
Aspect Oriented Programming

105 Tdm
Test Data Management

135 St
Stop Talking

41 Do
DevOps

57-71 Agile Methods

67 Pg
Planning Game

77 Np
Network Protocols

107 Dc
Distributed Computing

137 St
Stop Talking

42 Bm
Build Management

59 Td
Test Driven Development

69 Co
Collect Code Ownership

79 Sma
State Machines

109 Ws
Web Application Security

139 St
Stop Talking

43 Ds
Data Structures

61 Cd
Continuous Integration

71 Sr
System Manager

81 Cf
Code Format Standards

111 Ai
Artificial Intelligence

141 St
Stop Talking

44 Fi
Functional Languages

63 Us
User Stories

81 Cf
Code Format Standards

91 Em
Empathy

121 Phf
Physical Fitness

143 St
Stop Talking

45 Eb
Encryption Basics

65 Sm
Stand-up Meeting

83 St
Stress Testing

93 Cm
Conflict Management

123 Phf
Physical Fitness

145 St
Stop Talking

46 Dbs
Database Systems

67 Pg
Planning Game

85 Pt
Profiling Tools

95 Rh
Rhetoric

125 Phf
Physical Fitness

147 St
Stop Talking

47 Gat
Game Theory

69 Co
Collect Code Ownership

87 Rem
Management of Requirements Portfolio

97 Crt
Creativity Techniques

127 Phf
Physical Fitness

149 St
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48 Rob
Robotic Basics

71 Sr
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Presentation Skills

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Good Manners

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Measurement of Activities

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Large-scale System Design

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Management of Requirements Portfolio

105 Tdm
Test Data Management

115 Ex
Exploratory Testing

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57-71 Agile Methods

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Presentation Skills

107 Dc
Distributed Computing

117 Vc
Version Control Systems

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Program Comprehension

90 Ts
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Creation of Relationships

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<http://www.sw-engineering-candies.com/blog-1/periodic-table-of-software-engineering-know-how>

Avaliação privilegia o trabalho prático, em equipa

Componente TP, individual

Teste escrito

Componente P, em grupo

Laboratórios (guiões) que dão origem a uma entrega

Projeto de modelação

COOPERATIVE LEARNING It leads to more and deeper learning and longer retention of information; greater development of high-level thinking, problem-solving, communication, and interpersonal skills; more positive attitudes toward engineering and science curricula and careers and greater retention in those curricula; and better preparation for the workplace.

Richard Felder

Engineer

Richard M. Felder is the Hoechst Celanese Professor Emeritus of Chemical Engineering at North Carolina State University. [Wikipedia](#)



Referências/bibliografia

