

# APRESENTAÇÃO DA DISCIPLINA

MODELAÇÃO E ANÁLISE DE SISTEMAS | TP 1

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# 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

The screenshot shows the homepage of the DETI (Departamento de Eletrónica, Telecomunicações e Informática) at the University of Aveiro. The header features the university's logo and the text "universidade de aveiro deti departamento de eletrónica, telecomunicações e informática". Below the header is a navigation bar with links: "apresentação", "pessoas", "ensino", "investigação", "cooperação", and a search icon.



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
<b>Modelação e Análise de Sistemas</b>	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..																				
Requirements			Design			Lean IT			Maintenance			Infrastructure			Implementation			Testing		
1 Re Requirements Elicitation	3 Ra Requirements Analysis	4 Dc Component Design	11 Ar Atomic Requirements	12 Dbd Database Design	19 Rt Requirements Attributes	20 Dp Design Patterns	21 Sc Scrum	22 Rg Re-engineering	23 Bi Basics of ITIL	25 Bo Big O Notation	26 Ad Algorithm Design	28 Ol Object Oriented Languages	27 Scb Software Security Basics	28 Scc Scientific Computing	29 Pac Parallel Computing	30 Nm Numerical Mathematics	5 Bcs Basic Coding Skills	6 Sa Static Code Analysis	7 Ut Unit Testing	
37 Rr Requirements Review	38 Ap Architecture Pattern	39 Ka Kanban	40 Rv Reverse engineering	41 Do DevOps	42 Bm Build Management	43 Ds Data Structures	44 Fl Functional Languages	45 Eb Encryption Basics	46 Dbs Database Systems	47 Gat Game Theory	48 Rob Robotic Basics	49 Cco Code Comments	50 Cm Complexity Metrics	51 Pt Performance Testing	52 Ul Usability Labs	53 Ide Integrated Development Environments	54 Est Estimations			
55 Tm Traceability Management	56 Lsd Large-scale System Design	57-71 Agile Methods	72 Pc Program Comprehension	73 Mo Monitoring	74 Ade Automated Deployment	75 Aop Aspect Oriented Programming	76 Di Declarative Languages	77 Np Network Protocols	78 Dis Distributed Computing	79 Sm State Machines	80 Pac Parallel Computing	81 Cf Code Format Standards	82 Cc Code Coverage	83 St Stress Testing	84 Tt Test Automation Tools	85 Pt Profiling Tools	96 Moa Measurement of Activities			
87 Rem Management of Requirements Portfolio	88 Dn Design Notations	89-103 Soft Skills	104 Mp Maintenance Planning	105 Icm IT Change Management	106 Tdm Test Data Management	107 Dc Distributed Computing	108 Pl Procedural Languages	109 Ws Web Application Security	110 Ml Machine Learning	111 Ai Artificial Intelligence	112 Sdp Software Development Process	113 Cr Code Reuse	114 Dea Dependency Analysis	115 Ev Exploratory Testing	116 Mt Modeling Tools	117 Vc Version Control Systems	118 Pc Project Consulting			
57 Agp Agile Planning	58 Pp Pair Programming	59 Td Test Driven Development	60 Ddf Done or Done	61 Ccd Continuous Integration	62 Cy Continuous Delivery	63 Bs User Stories	64 Bam Backlog Management	65 Sm Stand-up Meeting	66 Sp Spike Solutions	67 Pg Planning Game	68 No No Overtime	69 Co Collect Code Ownership	70 Tl Travel Light	71 Sr System Metaphor	© 2013 by Marius Sprunck, www.sw-engineering-candies.com v1.0					
89 Prs Presentation Skills	90 Ts Training Skills	91 Em Empathy	92 Crr Creation of Relationships	93 Cm Conflict Management	94 Ns Negotiation Skills	95 Rh Rhetoric	96 Is Intercultural Skills	97 Crt Creativity Techniques	98 Ma Marketing Basics	99 Lea Leadership Basics	100 Gom Good Manners	101 Im Intrinsic Motivation	102 Ph Physical Fitness	103 St Stop Talking						
104 Ls Learning Styles	105 Tts Test Techniques	106 Tpd Test Plan Document	107 Tpd Test Plan Document	108 Tpd Test Plan Document	109 Tpd Test Plan Document	110 Tpd Test Plan Document	111 Tpd Test Plan Document	112 Tpd Test Plan Document	113 Tpd Test Plan Document	114 Tpd Test Plan Document	115 Tpd Test Plan Document	116 Tpd Test Plan Document	117 Tpd Test Plan Document	118 Tpd Test Plan Document	119 Tpd Test Plan Document	120 Tpd Test Plan Document	121 Tpd Test Plan Document			

<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

