

230321 - HI - History of Computing

Coordinating unit:	230 - ETSETB - Barcelona School of Telecommunications Engineering		
Teaching unit:	701 - AC - Department of Computer Architecture		
Academic year:	2019		
Degree:	BACHELOR'S DEGREE IN TELECOMMUNICATIONS SCIENCE AND TECHNOLOGY (Syllabus 2010). (Teaching unit Optional) BACHELOR'S DEGREE IN AUDIOVISUAL SYSTEMS ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN ELECTRONIC SYSTEMS ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN TELECOMMUNICATIONS SYSTEMS ENGINEERING (Syllabus 2010). (Teaching unit Optional) BACHELOR'S DEGREE IN NETWORK ENGINEERING (Syllabus 2010). (Teaching unit Optional) BACHELOR'S DEGREE IN TELECOMMUNICATIONS TECHNOLOGIES AND SERVICES ENGINEERING (Syllabus 2015). (Teaching unit Optional)		
ECTS credits:	2	Teaching languages:	Catalan

Teaching staff

Coordinator:	Jordi Fornés de Juan
Others:	Jordi Fornés de Juan

Requirements

No requeriments

Teaching methodology

Each session has a number of compulsory and recommended readings. The first should have done before attending the meeting in question. The format of the meetings will be quite participatory, encouraging discussion.

Learning objectives of the subject

- Comprendre i analitzar críticament el paper de la informàtica en la societat actual, a partir dels processos històrics que l'han configurada.
- Identificar el paper dels diversos actors (usuaris, institucions d'ensenyament i recerca, fabricants i governs) en la innovació informàtica.
- Orientar-se en la bibliografia més rellevant sobre aquestes qüestions.
- Comunicar oralment i per escrit arguments històrics i científics.

Study load

Total learning time: 50h	Hours large group:	20h	40.00%
	Self study:	30h	60.00%

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Content

1- Tools, themes and periods	Learning time: 3h Theory classes: 3h
<p>Description:</p> <ul style="list-style-type: none"> 1.1 The history of History. A methodologic notes. 1.2 The big issues: topics on the history of computing. 1.3 Chronology. 	
2- Before computers. Automatic computing and the government machine	Learning time: 3h Theory classes: 3h
<p>Description:</p> <ul style="list-style-type: none"> 2.1 Babbage and Ada 2.2 Leonardo Torres Quevedo 2.3 Hermann Hollertith 2.4 Analog computer 	
3- Computers at war	Learning time: 3h 30m Theory classes: 3h 30m
<p>Description:</p> <ul style="list-style-type: none"> 3.1 Alan M.Turing 3.2 Konrad Zuse. 3.3 John P. Eckert, John W. Mauchly and John von Newman 3.4 Sir Maurice V. Wilkes. 	
4- On hippies and hackers. Main, Mini, Micro	Learning time: 3h 30m Theory classes: 3h 30m
<p>Description:</p> <ul style="list-style-type: none"> 1.1 IBM and the Seven Dwarfs 1.2 DEC culture 1.3 The PC revolution 	

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5- Cyberspace	Learning time: 3h 30m Theory classes: 3h 30m
<p>Description:</p> <ul style="list-style-type: none"> 5.1 The origin of Internet 5.2 Internet in Europe 5.3 Iberpac and the Tesys project 	
6- Computing in Spain (1950-1982)	Learning time: 3h 30m Theory classes: 3h 30m
<p>Description:</p> <p>Traducir del: español</p> <ul style="list-style-type: none"> 6.1 State support: from "Instituto de Electricidad y Automática" to "Instituto de Informática" 6.2 Professionalization: the Computing Technicians Association 6.3 Training: the first Schools of Informatics 	

Qualification system

The seminar evaluation consists of 1,024 points, distributed as follows: 256 in a paper of approximately 2,000 words in the form of research paper on a topic related to the history of computing, 256 points in a final exam, 256 points in participation in the discussions and 256 in proposed exercises.

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Bibliography

Basic:

Barceló, Miquel. Una història de la informàtica. Barcelona: Editorial UOC, 2008. ISBN 9788497887045.

Ceruzzi, Paul E. A history of modern computing. 2nd ed. Cambridge (Mass.): MIT Press, 2003. ISBN 0262532034.

Complementary:

Campbell-Kelly, Martin. Computer: a history of the information machine. 2nd ed. Boulder, CO: Westview, 2004. ISBN 9780813342641.

Singh, Simon. Los códigos secretos: el arte y la ciencia de la criptografía, desde el antiguo Egipto a la era Internet. Madrid: Debate, 2000. ISBN 848306278X.

Clifford, Stoll. El huevo del cuco. Barcelona: Planeta, 1990. ISBN 8432044661.

Kidder, Tracy. The soul of a new machine. London: Penguin books, 1981. ISBN 0316491705.

Black, Edwin. IBM y el holocausto. Buenos Aires: Atlántida, 2001. ISBN 9500824663.

Turner, Fred. From counterculture to cyberculture : Stewart Brand, the Whole Earth Network, and the rise of digital utopianism [on line]. Chicago: University of Chicago Press, 2006 [Consultation: 01/10/2015]. Available on: <<http://site.ebrary.com/lib/upcatalunya/detail.action?docID=10425103>>. ISBN 9780226817439.

Abbate, Janet. Inventing the Internet [on line]. Cambridge, MA: MIT Press, 2000 [Consultation: 12/01/2016]. Available on: <<http://lib.myilibrary.com/Open.aspx?id=209998>>. ISBN 9780262266703.

Fara, Patricia. Science: a four thousand year history. Oxford: Oxford University Press, 2009. ISBN 9780199580279.

Ensmenger, Nathan. The computer boys take over. Cambridge: MIT Press, 2010. ISBN 9780262517966.

Maixé-Altés, J. Carles. Innovació i compromís social : 60 anys d'informatització i creixement, 1950-2011. Barcelona: Caixa d'Estalvis i Pensions de Barcelona, 2012. ISBN 9788469542279.

Calvo Calvo, Ángel. Telecomunicaciones y el nuevo mundo digital en España: la aportación de Standard Eléctrica. Barcelona: Planeta, 2013. ISBN 9788408113157.