

Basic computer Science for medical students

AA 19/20

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- My research is on software engineering

2part of the course

- Another teacher:
- dott. Silvia Bonfanti
- Database module

Computer science for physicians? Really?



What are the goals of this course?

- Basic knowledge of computers and information technology
- Efficient use of IT tools
 - To be more productive
 - To be safer (privacy and so on)
 - To be updated w.r.t. new technologies
- For personal use, as student, as professional
 - For gathering data in an effective way
 - For extracting new information

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“More and more patients are going to the Internet for medical advice. To keep my practice going, I changed my name to Dr. Google.”

What we do then?

- 1. Basic concepts of ICT (Information and Communication Technology)
- 2. Computer use and files managing
- 3. Word processing (basic + advanced)
- 4. Spreadsheets (basic + advanced)
- 5. Database usage
- 6. Presentation
- 7. Web Browsing and Communication
- ?? Health care systems ??

At the end

- what hardware and software are, and how to provide examples of systems. how computing networks are used and all the
- how to use the basic functions of the operating system . the able to efficiently organize files and folders so that they are software to compress and extract large files, and how to us from viruses .
- how to use simple editing tools and print management how to insert tables, images and import objects into documents
- how to work with spreadsheets and save them in various formats. how to choose, create and format charts to communicate information meaningfully.
- how to create a table, define and modify fields and their properties; enter and edit data in a table.
- how to work with presentations and save them in different file formats. • how to choose, create and format charts to communicate information meaningfully. • how to insert and edit pictures, images and drawings. . understand what Internet is and what are the key terms associated with it.
- Perform common tasks of web browsing, including changing the browser settings. • Understand what an e-mail is and know some advantages and disadvantages of its use. Be aware of other modes of communication.



... computer programming ...

[Journal List](#) > [Surg Neurol Int](#) > v.4; 2013 > [PMC3622380](#)



[Surg Neurol Int](#). 2013; 4: 30.

PMCID: [PMC3622380](#)

Published online 2013 Mar 22. doi: [10.4103/2152-7806.109461](#)

Why physicians might want to learn computer programming

[Pieter L. Kubben](#)*

Redeem your self

POPULAR

QUARTZ

OBS

Why I became a computer scientist instead of a doctor



Course material

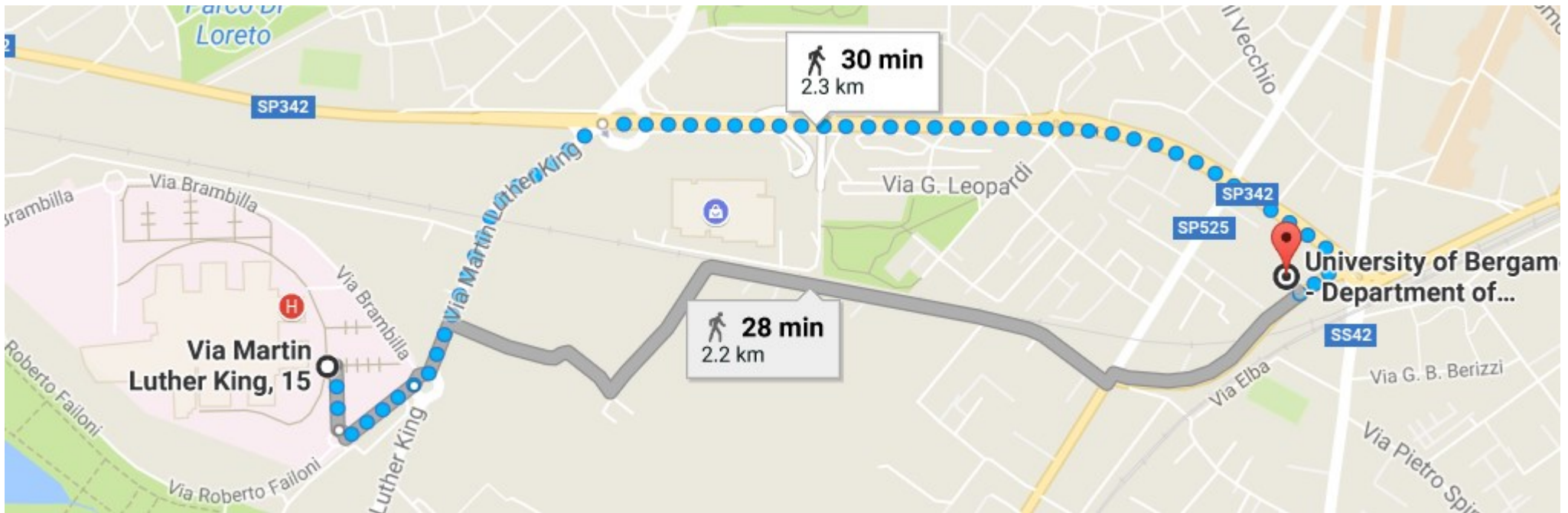
- Main link:
- <http://cs.unibg.it/gargantini/didattica/basiccs4med/>
 - Material (books)
 - <http://cs.unibg.it/gargantini/didattica/basiccs4med/restricted/>
 - User: basiccs4med
 - Password: Bergam0
- Elearning site:
 - <https://elearning.unimib.it/course/view.php?id=20930>

Calendar

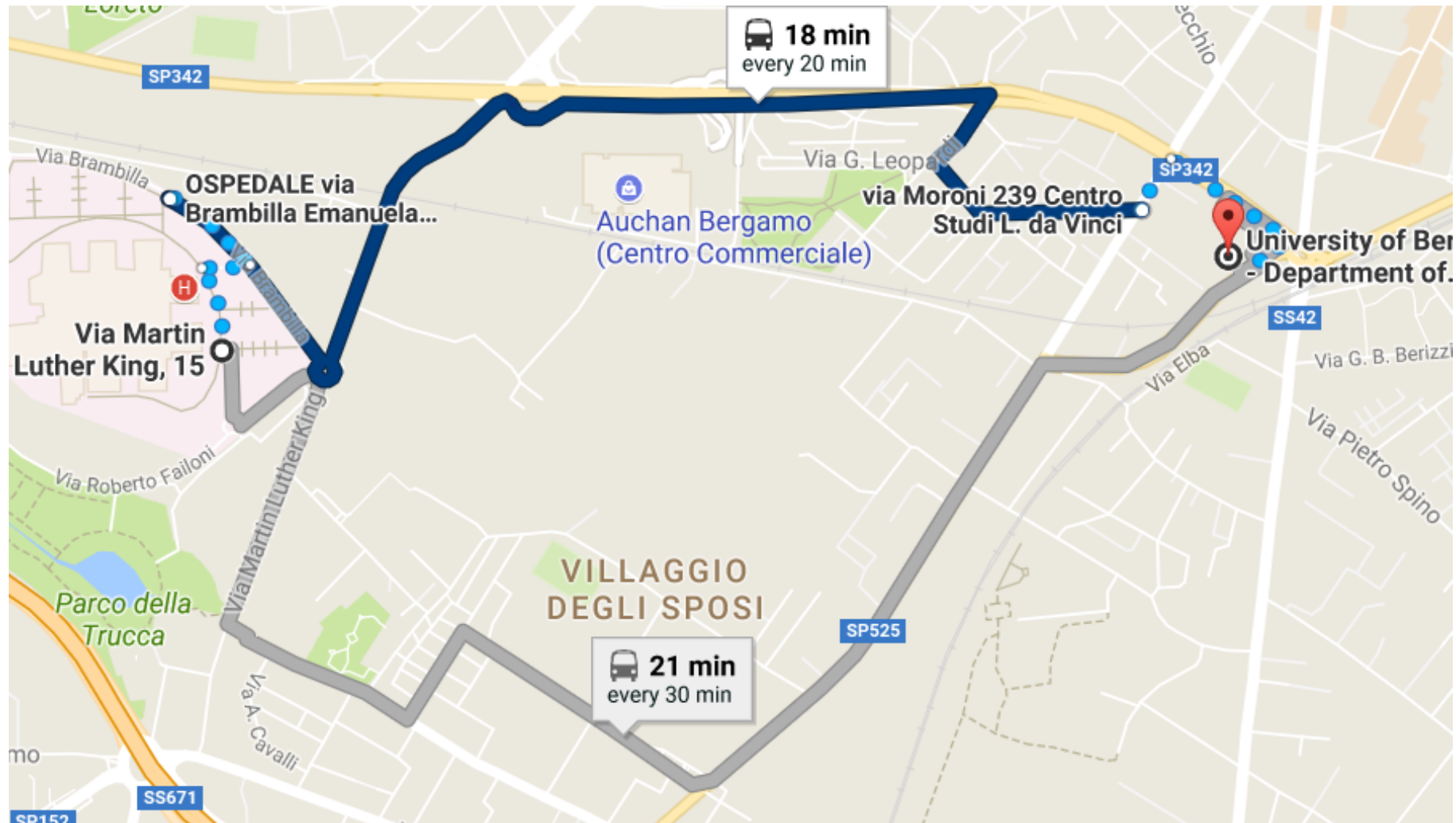
- Follow the official calendar
- Except for the dates in lab
- I publish my calendar (with what has been done) on my google calendar

Computer lab

lab 19 via dei Caniana – campus Economia - Bergamo
only 24 PCs



By public transport – bus n. 2 or 5





Date for labs

- 4 november whole day (8h - 9-13 e 14-18)
- 18 november (4h 9-13)
- 20 november afternoon (4 h 14-18)
- 2 december (14-18)

Clerkship 1

- BCS is also part of clerkship 1
- Laboratories will be considered for that

Exam for this module

- Divided in two parts
 1. Some questions (manly closed) about the theory
 - Example: how many bits in byte...
 2. An exercise to do on computer where:
 - Word: write a paper in a given format with some extra (like pictures, styles, ...)
 - Excel: analyze some data (use formulas...)
 - Presentation: write a presentation
 - Database: design and implement a database
- For every exercise there is mark, the sum up to 32
- DATES:
 - 23/01/2020 9:00 13:00
 - 07/02/2020 9:00 13:00

Exams for the entire course

- Each module will have a different exam
 - Normally modeling and imaging the same day, my module another day because we need the lab
- To pass the exam, all the modules must be passed (mine with ≥ 17)
 - Also in different dates
 - The vote for one module will last till the end of the year (dec 2020)
 - The average will be the final vote.
 - `ROUND(AVERAGE(Q8:S8);0)`

tools

- We normally use office 365 – with English interface
 - You can download it and install using your unimib account
- For database: we will use access (or BASE of libre office)
 - you can have a copy of MS access - See Microsoft Imagine Premium - from here:
 - <http://www.old.unimib.it/go/151599839649112306/Home/Italiano/Service-Desk/Software-download>
- In lab we have the ITALIAN and ENGLISH version
 - Change the language of the interface

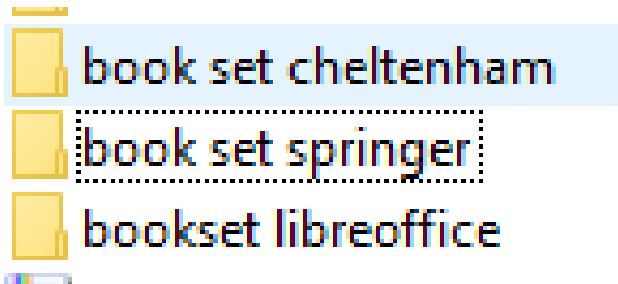


Programs to be used for the exam

- you can use the programs installed on the laboratory machines (in italian)
- you can use your laptop - but with an empty user and no backup programs activated (like dropbox) and no wifi (no whatsapp, no skype, etc.)

material

- Follow the syllabus
- on the restricted site:
 - slides
 - After the lessons (and not complete)
 - Several notes (as pdfs)
 - 3 book sets – chose one:



Module		Hours	on computer	totale	In lab
1	Basic concepts of ICT (Information and Communication Technology)		2		
2	Computer use and files managing		2		
3	Word processing		2	9	5
4	Spreadsheets		4	9	5
5	Database usage		4	7	5
6	Presentation		2	2	
7	Web Browsing and Communication		2	0	
	•?? Health care systems ??				
		18	27	45	15