

Software Engineering Introduction

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Objectives

- *Provide a **strong background in programming** from the basics up to oriented object programming and template objects / functions.*
 - *Needed later for robotics, research projects, etc*
- ***Improve communication and technical skills** through a project which aims at building a demonstration software from a research prototype or paper.*
 - *Share knowledge, tips and tricks, discuss and compare*
- ***Build bridges with other modules** (Applied Mathematics, Image Processing)*
 - *Through the Project, you might have to use PCA, optimization, discrete mesh processing, etc*

Foreword

- <http://mscvision.u-bourgogne.fr/>
 - Unavoidable to follow
 - Lectures already available (will be updated regularly)
 - Labs to be downloaded
 - Everyday information
 - Discussion area if needed

Some words about... Plagiarism

- What is plagiarism (taken from plagiarism.org)?
 - Many people think of plagiarism as copying another's work, or borrowing someone else's original ideas. But terms like "copying" and "borrowing" can disguise the seriousness of the offense:
- **According to the Merriam-Webster Online Dictionary, to "plagiarize" means**
 - to steal and pass off (the ideas or words of another) as one's own
 - to use (another's production) without crediting the source
 - to commit literary theft
 - to present as new and original an idea or product derived from an existing source.
 - In other words, plagiarism is an act of fraud. It involves both stealing someone else's work and lying about it afterward.

Plagiarism and few (bad) reasons

- I lacked time
 - It's your responsibility
- No one's hurt, so what? And I just « borrowed it »
 - So can you return the favor? No
 - It penalizes you and the people you steal from
- It was so well written, I thought I could not do better
 - Do not be shy. Have you thought about people working on Shakespeare??
- Googlito ergo sum: if it's available online, it's free

Whatever happens : No excuse!

Plagiarism is the plague of modern professional and educational behaviors, especially due to the easiness to find ressources online

For your information

- If you do a plagiarism, we will detect it
 - And you will fail... This already happened, ask former students...
 - Google is already efficient for plagiarism detection (scientific document, source codes, etc), but there exist specific softwares.
- Different types of plagiarism
 - Copy/paste from internet
 - Copy colleagues' work
 - Rephrasing existing resource without citation
 - Self-plagiarism
 - Claiming novelty of an idea while « forgetting » to mention the adequate reference...
- Common point : lack of citation / acknowledgement

One rule to avoid plagiarism

- Just cite it!
 - If it's not yours, simply cite/acknowledge the source
- What should be cited?
 - Everything you did not produced yourself
 - Images, text, algorithms, logos, songs, concepts
- Hey, I just changed one/word pixel in an image/text, can I say it's mine??
 - Guess a little...

Some words on the project

- Project starts now!
- Deadline for submission January the 12th
 - Rephrased for the picky ones: 23:59:59 on the 12th is OK, 00:00:00 on the 24th and you are late.
- Defenses the week after
- 2 students per project, 3 only if mandatory and fully justified
- Project is cool : 3D Shape matching!

Some advices

- Read papers, take some time to think before coding
- Do not wait before working on it
- Ask questions and discuss BEFORE coding
- Share the work if possible
 - Some tasks can be done in collaboration (database acquisition, model creation/perturbation, etc)
- Do not think that only implementation matters...

Some words on the project

- Project starts : Now!
- Deadline for submission : January the 5th, 2014
- Defenses : the week after
- 4 students per project, at most
- Project is cool : Le Creusot MsCV-Vibot-Map

Some advices

- Read some papers
- Do not waste time
- Ask questions and discuss BEFORE coding
- Share the work if possible
- NO plagiarism
- Do not think that only implementation matters