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SESSION 1: INFORMATION OF THE COURSE

Theory Tuesday 8.00-9.00

Practical Tuesday 9.00-10.00

Organization of the course

Resources (expected model)

1. Campus virtual

1. Provisional calendar

2. Theory - Slides of the course

1. Theory material as Power point slides

3. Practical session - Exercise text and instruction

1. Practical session in the format of a MsWord / Jupyter step-by-step instructions

4. Deliverable link

1. Link in which the student will upload the code and the report of the Practical session

5. Forum

1. Tool in which the student will write questions to the teacher. It allows to share the doubt and the answer to all the students, to avoid to repeat explanations. Do not hesitate to use it! Other students might have the same doubt as you.



CALENDAR (example of 2019 course)

| | | | | | |
|-------|--------------|---------------------------|-------------------|--------------|-----------------------------------|
| 28-9 | T0 | Introduction DLMIA | | P0-0 | No practical session |
| 5-10 | T1 | US | | P1-1 | Denoising (python Keras) |
| 12-10 | Bank Holiday | | | Bank Holiday | |
| 19-10 | T2 | MRI | | P1-2 | Denoising (python Keras) |
| 26-10 | T3 | ItraVascular (IVUS - OCT) | | P1-3 | Denoising (python Keras) |
| 2-11 | PR1 | Presentations I | Mini-exam on T123 | PR1 | Presentations I |
| 9-11 | T4 | CT/ Xray | | P2-1 | Reconstrucció CT (python/skimage) |
| 16-11 | T5 | Mamography | | P2-2 | Reconstrucció CT (python/skimage) |
| 23-11 | T6 | Pathology / OPTICO | | P2-3 | Reconstrucció CT (python/skimage) |
| 30-11 | PR2 | Presentations II | Mini-exam on T456 | PR2 | Presentations II |
| 7-12 | T7 | DL techniques | | P3-1 | Challenge implementation |
| 14-12 | T8 | DL techniques | | P3-2 | Challenge implementation |
| 21-12 | T9 | DL techniques | | P3-3 | Challenge implementation |
| 28-12 | Bank Holiday | | | Bank Holiday | |
| 4-1 | Bank Holiday | | | Bank Holiday | |

Calendar 2021:

23/02 12:00-13:30 Presentation of the course
23/02 15:00-16:00 Support with Campus Virtual

02/03 12:00-13:30 T1
02/03 15:00-16:00 P1 (1st week)

09/03 12:00-12:15 mini-exam T1
09/03 12:15-13:30 T2
09/03 15:00-16:00 P1 (2nd week)

16/03 12:00-12:15 mini-exam T2
16/03 12:15-13:30 T3
16/03 15:00-16:00 P1 (3rd week)

23/03 12:00-12:15 mini-exam T3
23/03 12:15-13:30 T4
23/03 15:00 Delivery P1 (1st week)
23/03 15:00-16:00 P2 (1st week)

30/03 Holy week, bank holiday



Course outline

The course is divided in 3 Blocks of 3 weeks each. (color coded in the calendar picture)
(example T1, T2, T2 and P1, P2, P3 are part of Block 1)

At the end of each Block (3 weeks).

Theory - a mini-exam (a test in the campus virtual) the will be provided. The mini-exam will be available the week after the end of the block.

Practicum – A practical session will last 3 weeks. The student is expected to provide a report + code (jupyter) at the end of each block.

Once during the course

Presentation – The students will be required to present a bibliographic research. Topic: a medical image grand challenge (to be chosen in <https://grand-challenge.org/>)

So, to summarize

The course is composed of total of 3 mini-test evaluations, 3 practicum delivery, and 1 presentation



3- Evaluation (continuous evaluation option)

Continuous evaluation requires that **all the practical sessions are delivered.**

The final score (FS) will be computed as follows:

The course will follow a continuous evaluation consisting in:

- practical reports (PR)
- in-class presentations (PS).
- multiple mini-tests about the theory will be performed (TS).

$$FS = 0.4 * PR + 0.3 * PS + 0.3 * TS$$



Thanks

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