



UNIVERSITAT DE BARCELONA



>>> IMAGE PROCESSING AND COMPUTATIONAL PHOTOGRAPHY

SESSION 1: INFORMATION OF THE COURSE

Simone Balocco & Ricardo Marques

SESSION 1: INFORMATION OF THE COURSE

Course 2020-2021

Contact: Simone.balocco@ub.edu

Organization of the course

1- Semi-face-to-face scenario (expected model)

- Mixed teaching
 - between 25% and 50% of in-person activities (rest of the time online)
- 1. Face-to-face Theory/Practical (Thursday 17.00-18.30) 20 student in classroom B7
- 2. Online Theory/Practical (Friday 12.00-13.00) using Zoom*
(no videos of the full session will be shared in the Campus virtual)
- 3. Online Support (Thursday 15.00-16.00) using Zoom*
(no videos of the full session will be shared in the Campus virtual)

* links to zoom sessions will be provided in the campus virtual

Organization of the course

1- Semi-face-to-face scenario (expected model)

1. Face-to-face Theory/Practical (17-18.30) 20 student in classroom B7

Teacher Simone Balocco (Simone.balocco@ub.edu)

1. (Frontal teaching) the time will be devoted to explain the theory material and the practical exercises of the campus.
2. **IMPORTANT No recordings of the Face-to-face class will be performed.**

2. Online Theory/Practical (12.00-13.00)

Teacher Simone Balocco (Simone.balocco@ub.edu)

1. (Flipped teaching) the time will be devoted perform question and answer sessions about theory and the practical exercises.
2. the theory explained in the face-to-face session will not be repeated. The student may ask questions or may formulate specific doubt about a topic. The teacher might repeat specific explanations to clarify or to provide support.
3. **IMPORTANT No recordings of the full session will be uploaded into the campus.**
4. Short videos or additional material might be shared in the campus virtual by the teacher in case of a specific doubt, which might be beneficial to all the students.

3. Online Support (15.00-16.00) - Teacher Ricardo Marques (ricardo.marques@ub.edu)

1. Online support for the practical sessions /exercises
2. Doubts about the code, possibility to share screen using Zoom
3. **IMPORTANT No theory will be explained during this session**

Organization of the course

1- Semi-face-to-face scenario (expected model)

Common doubts?

1. Am I obliged to attend the Online Theory/Practical session
 1. No, you are not obliged, however it is recommended.
 2. **The recording of the full session will not shared** into the campus so there is no possibility to watch them in another time of the day
2. Am I obliged to attend the face-to-face session
 1. No, you are not obliged, however it is recommended.
 2. Beware! No theory video will be shared, and online sessions and forum will answer to specific doubts (questions/answer).
3. Whan can I do if I cannot attend ONE specific session?
 1. The teaching material (PDF, live code) will be available in the campus virtual and is sufficient for the course understanding.
 2. If you missed the Online Theory/Practical session you can attend the face-to-face session and vice versa and ask for your specific doubt there.
4. Whan can I do if I cannot attend to ANY session?
 1. The “evaluación continuada” consists in attending most of the sessions. If the format of the course doesn’t suit your time-table, you have a few weeks for enroll to another one of the University

Organization of the course

Changes discussed on 1/10/2020 and 2/10/2020

- Some students were working in the morning, and could not attend the morning online session. Hence the frontal class is moved from the online session (morning) to the face-to-face session (afternoon). During the online session a flipped class teaching is proposed.
- In case of COVID test of a student, some personalized option will be provided, such as personalized tutorials, or repeat the frontal class both online and face-to-face sessions.
- One student had to take a transport at 1:30 (at the end of the online session). The online session is moved 30 minutes earlier from 12:00 to 13:00 to accommodate the student need. The teacher is willing to continue the session until 13:30 if needed.
- The online support time overlaps with another lectures. A pool is provided to identify a more suited timetable for the session.

Organization of the course

COVID POLICY

- In case any of the student (or relative/Friends) have symptoms, or is pending to a PCR/COVID test
 - MUST inform the teacher by email
 - MUST attend online sessions only
 - Isolate for 10 days and not meeting any other student until the quarantine period is over or the COVID status is clarified by a test.

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. Theory – Live codes
 1. Short Python Jupyter illustrating basic code, libraries, examples
4. Practical session - Exercise text and instruction
 1. Practical session in the format of a MsWord step-by-step instructions
5. Deliverable link
 1. Link in which the student will upload the code and the report of the Practical session

6. 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.

Video Recording policy

- The online sessions will be recorded by the teachers following the data-protection policy detailed in:
<https://www.ub.edu/web/ub/ca/universitat/coronavirus/proteccio-dades-personals/index.html>
- The recordings will NOT be shared into the campus virtual for delayed visualization. The online sessions are synchronous, and the students are invited to attend online (not offline) to fulfill the “evaluación continuada” program
- Only short videos might be released into the campus virtual in order to complement the PDF of the course and to cover specific topics.
- The student recording of online sessions **IS PROHIBITED** and academic measures might be taken in case of infringement.

CALENDAR (example of 2019 course)

Introducción

● Theory

Actual * Progreso: 0 / 1

Live Code

Progreso: 0 / 4

Exercises

Progreso: 0 / 2

Exams

Tema 23

Tema 24

Tema 25


Tema 26

Tema 27

Tema 28

Tema 29

Tema 30

 [Atajos a la administración del curso](#)

 Actual

Calendar

03/10 Theory

07/10 Practical session 1 (Hybrid image) second week

10/10 Theory

WARNING EXTENSION OF ONE WEEK of THE PRACTICAL DELIVERY 1 (UNTIL Monday 21)

17/10 Practical session 1 (answer to questions/doubts) third week

21/10 Delivery Practical session 1 before 3pm

21/10 Practical session 2 First week

24/10 Theory

28/10 Practical session 2 Second week

31/10 Practical session for the student attending the class(POSSIBLE STRIKE).

4/11 Practical session 2 third week

7/11 THERE IS NO COURSE (EXAM WEEK)

11/11 THERE IS NO COURSE (EXAM WEEK)

13/11 6pm-8pm EXAM OF PIM (THEORY)

14/11 THERE IS NO COURSE (EXAM WEEK)

18/11 Delivery Practical session 2 before 3pm

18/11 Practical session 3 first week

21/11 Theory

25/11 Practical session 3 second week

28/11 Theory

Theory



Sessió 1: Introducció



Sessió 2



Sessió 3 Fourier



fourierApp



Sessio 4: Advanced filtering



Sessió 4b : Binary image processing



Sessió 5: Color



Live code

CONTENIDO



Introducción

● Theory

Actual • Progreso: 0 / 1

Live Code

Progreso: 0 / 4

Exercises

Progreso: 0 / 2

Exams

Tema 23

Tema 24

Tema 25

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Tema 30



Atajos a la administración del curso

Live Code

Live Code



----- LIVE CODE 1-----

Fitxers "Live coding" sessió 1



Live coding notebook

JPEG



color check

Practical sessions

 [Enunciat pràctica 0](#)



 [Fitxers pràctica 0](#)

Practical session 1: Hybrid Images. (Two weeks)

 [Enunciado Practica 1](#)



 [Ficheros por practica 1](#)

TAREA

 [Delivery Practic 1 \(hybrid image\) 18/10 \(before 3 pm\)](#)

No entregado **Vencimiento 18 de octubre de 2019**

Organization of the course

2- ONLINE scenario (In case of COVID restrictions)

1. Online Theory/Practical (17-18.30) Synchronous
2. Online Theory/Practical (12.30-13.30) Synchronous
3. Online Support (15.00-16.00)

Organization of the course

3- Evaluation (continuous evaluation option)

- Continuous evaluation requires that **all the practical sessions are delivered**.
- Theory tests [T1 and T2]: two (online or face-to-face) tests Weight of the test 50% of the final mark of the course.
 - T1 is planned around end November, T2 is planned the last week of the course (end December)
- Practical deliverable [P1,P2,P3]: A minimum of three deliverable are expected
 - Weight of the deliverable 50% of the final mark of the course.
 - The delivery of the practical session is every 2-3 weeks (according to the calendar)
- The final note (FN) will be computed as follows:
 - $FN = 0,25 * T1 + 0,25 * T2 + 0,50 * \text{avg}(P1,P2,P3)$.

Organization of the course

3- Evaluation (Evaluacion unica)

- If the students succeed in the continuous evaluation (follows all the sessions, delivers in time, and succeed in the theory exams) receive the note of the course in december and it is not required to attend the january exam session.
- Otherwise
 - 1) fails the continuous evaluation or 2) the student select to be evaluated following the “evaluación única”
- The “evaluación única” consists in a long practical exam about the whole context of the course. The date of the exam will be established in the departement web. It will be face-to-face or online depending on the COVID condition

Continuous feedback

A google page has been created in order to give
CONTINUOUS feedback for the course.

Any suggestion, improvement are more than welcome.

[https://docs.google.com/forms/d/e/1FAIpQLSc0oajn7AfO
vjT92-
ohit643Z36nZYDpYEZQZxmDaEqUuTCpw/viewform](https://docs.google.com/forms/d/e/1FAIpQLSc0oajn7AfOvjT92-ohit643Z36nZYDpYEZQZxmDaEqUuTCpw/viewform)

The feedback is (optionally) anonymous. Please add your
name in order to receive a better answer from me