


浙江大学爱丁堡大学联合学院

ZJU-UoE Institute

Introduction to BIA4 in-course assessments

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Assessments

ICA 1 – Group work – 40% final mark

You will produce a well-documented piece of Python software to solve a specific problem in bio-imaging.

ICA 2 – Individual work – 60% final mark

You will produce an individual report highlighting the use for your software and reflecting on your group work.

Groups

Groups of 7-8 students have been generated through a random process, ensuring that each group has a mix of students from both the Integrative Biomedical Sciences and the Biomedical Informatics programmes.

The list of groups and all necessary information is available on Learn.

Please contact me at nicola.romano@ed.ac.uk for any issues.

Setting the ground for group work

There are no specific rules for group work, but here are some suggestions:

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- Set up a **communication channel**. I have created Slack channels for each group.
- Decide **how you will work together**.
- Set up some **rules and expectations** for your group work (How often will you meet? How will you make decisions? How will you deal with conflicts?...)

Setting the ground for group work

- **Be respectful** of your group members. Everyone has different skills, experiences, and ways of working, and everyone has something to contribute.
- **Be honest** with your group members. If you are struggling or unhappy with something, let your group members know.
- **Be proactive**. If you see something that needs to be done, do it. If you see a problem, try to solve it. If you have an idea, share it.
- **Be open-minded**. Your group members may have different ways of thinking. Listen
- If anything goes wrong, **let me know as soon as possible**. I am here to help you, and I want to make sure that everyone has a positive experience.

ICA 1 - What to do

Starting the group work

- Choose a bio-imaging problem that you would like to solve.
- Define the problem clearly.
  - What are you trying to achieve?
  - What data do you need?
  - What will your software do?
  - Who is your target audience?
  - What is the use case for your software?
- I have provided a series of datasets that you can use for your project, but you are also welcome to use your own datasets if you prefer. You can find the list of datasets on Learn.

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IMPORTANT: to ensure a variety of different projects we ask you **to rank three different projects**, so that we can assign you to one of them. We will allow up to three groups to work on the same project, so we will assign you to one of your choices, based on availability.
From past experience, most groups get either their first or second choice, but we cannot guarantee this.

Ranking your choices

Please send me a message (one per group!) with your group name and the three projects you would like to work on, ranked from 1 to 3
before **Monday 21st October at noon**.

I will release the assignments on Learn as soon as possible after that.

What is expected from the group work

This is not (just) a programming assignment.

Your focus should be on **solving a life sciences problem**, not just writing code.
Understand the problem, research the data, and think about how your software will be used.
Avoid writing complex code without a clear goal, as this can lead to poor results.

What you need to produce

As a group

- Python code that solves the problem you have defined. This should be submitted on GitHub. I have created a repository for each group, you will receive an invitation to join it.
- Documentation for your software. This could be in any format you like.
- A contribution statement.
- A short report summarising your work. This should be submitted on Learn.

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As an individual

- A peer-marking form.

For more details, see the ICA 1 documentation on Learn.

Marking criteria

Full marking criteria will be provided on Learn, but you will be assessed on the following:

- Understanding of the biomedical problem you are trying to solve.
- Group effort and collaboration.
- Quality of the software produced.
- Documentation of the software.
- Quality of the Python code.
- Evidence of good programming practice.

Peer-marking

This year we are introducing a peer-marking system for the group work. This means that you will be asked to mark and give feedback on the contributions of your group members.

This is in response to feedback from previous years, where some students felt that not all group members were contributing equally to the project.

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I will provide a template for the peer-marking form

A more complete explanation of the peer-marking system will be provided on Learn.

If you do not complete the peer-marking form, I will assume you think everyone contributed equally to the project.

ICA 2 - What to do

ICA 2 will be an individual report, where you

- Critically discuss the use of your software in the context of the bio-imaging literature. **It is important to reflect on the practical use of your software, this is not just about the technical details.**
- Critically reflect on future directions that could be taken to improve your software.
- Reflect on your group work. What went well? What could have been improved? What did you learn from the experience?

Marking criteria

Full marking criteria will be provided on Learn, but you will be assessed on the following:

- Understanding of the biomedical problem you are trying to solve.
- Critical appraisal of the literature.
- Critical evaluation of how the work could be improved.
- Support from the current literature on the topic.
- Reflection on the group work.

Any questions? Ask me on Slack (#ICA channel)
or send me an email at nicola.romano@ed.ac.uk