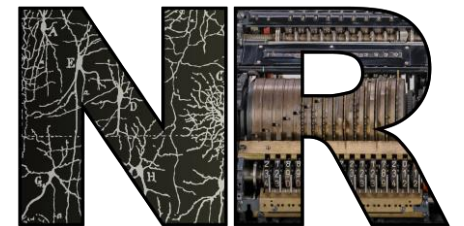


Course outline



Topics

Part 1 – Structure of the brain

- Neurons
- Synapses and networks
- Anatomy of the brain

Part 2 – Learning in brain and machine

- Learning rules
- Training “spiking” neural networks

Part 3 – Theoretical approaches

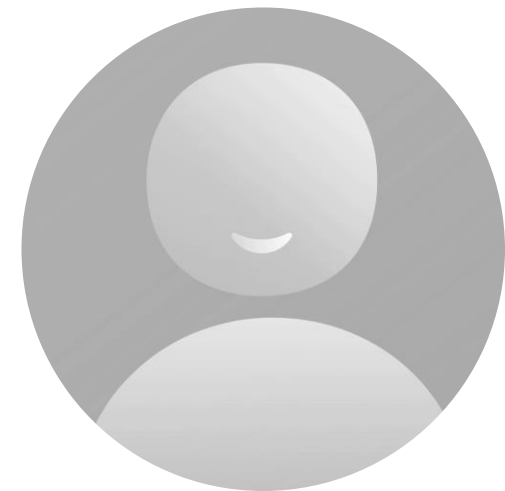
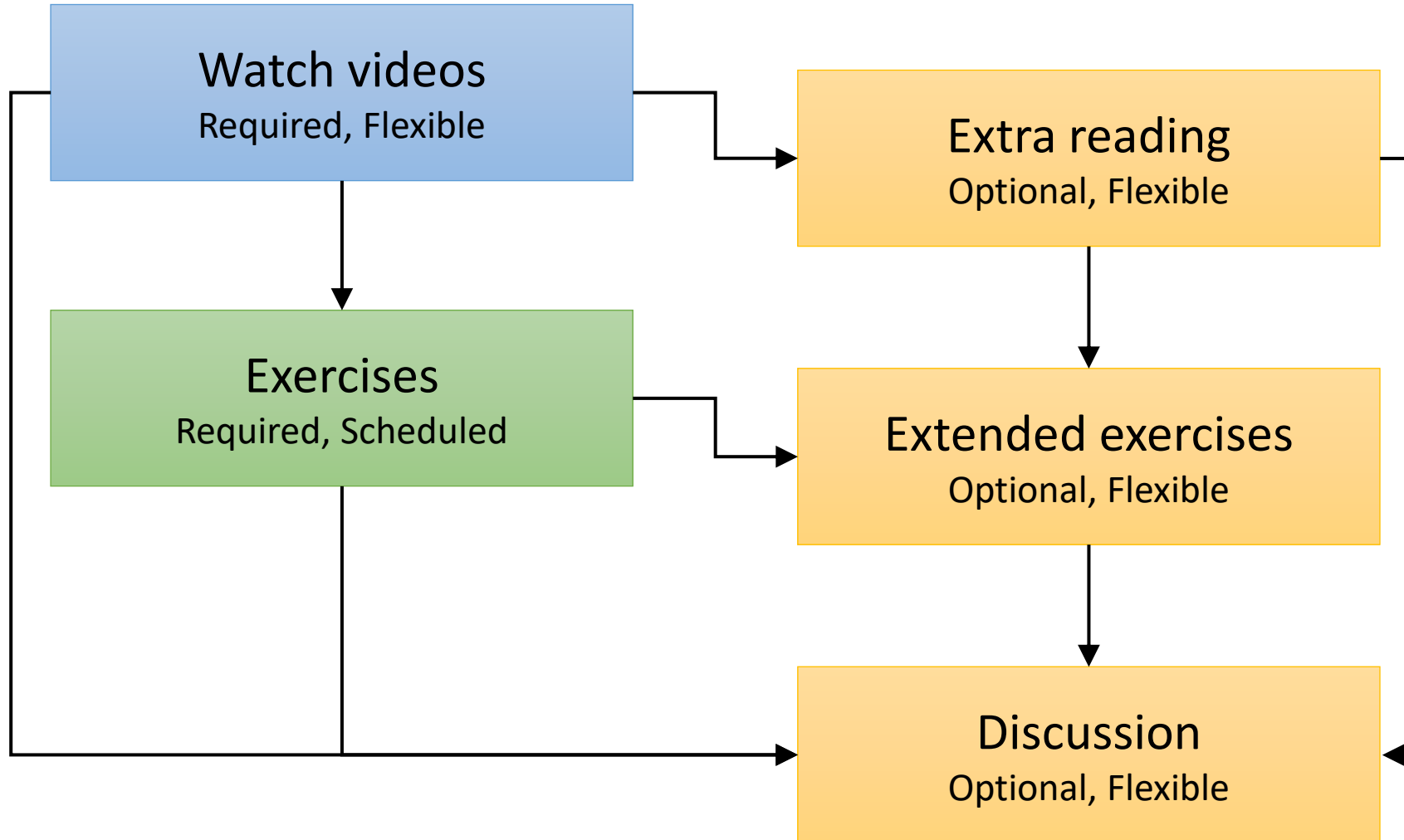
- Understanding neural networks
- Various topics

Part 4 – Future developments

- Neuromorphic computing
- Recent developments



Weekly structure



Assessment

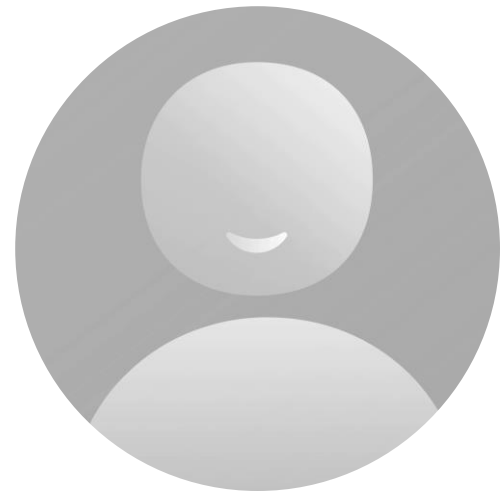
Coursework 1 – 40%

Coursework 2 – 40%

- Groups of two
- Coding-based
- Python notebooks, e.g. Google Colab
- Can claim costs of Google Colab Pro
- Peer assessment

End of term quiz – 20%

- Multiple choice



Questions?

At Imperial → **Teams**

Online → **Discord**

