Informatics 1A
Introduction to Computation
Lecture 0

Introduction

Don Sannella
University of Edinburgh

Who

Don Sannella

Lecturer:
Functional Programming
(FP)

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IF 5.12

Julian Bradfield

*Lecturer:
Computation and Logic
(CL)*

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IF 4.07

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Informatics 1A
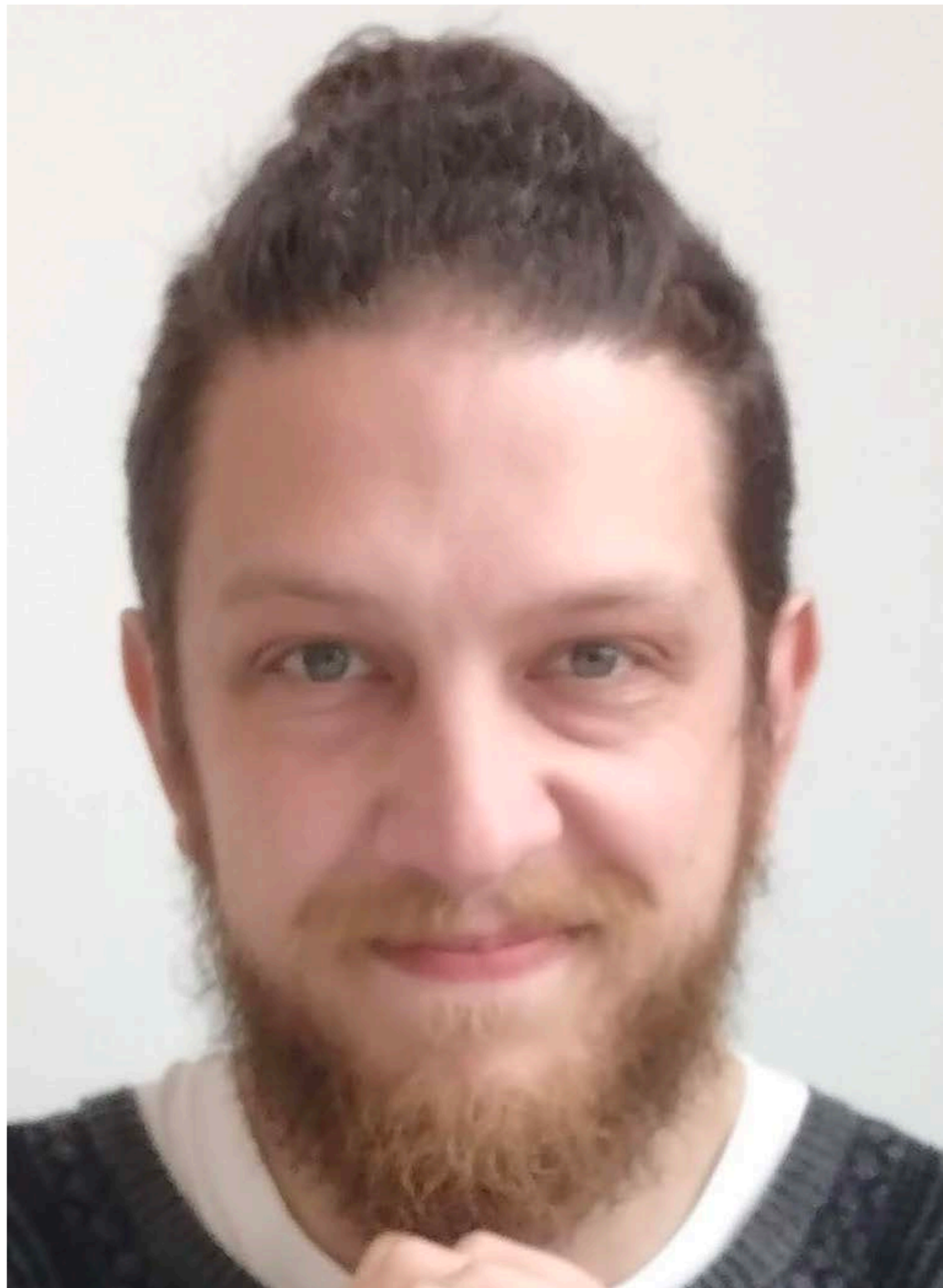*Teaching Assistant*

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IF 3.25

James Garforth

*Informatics 1
Course Organiser*
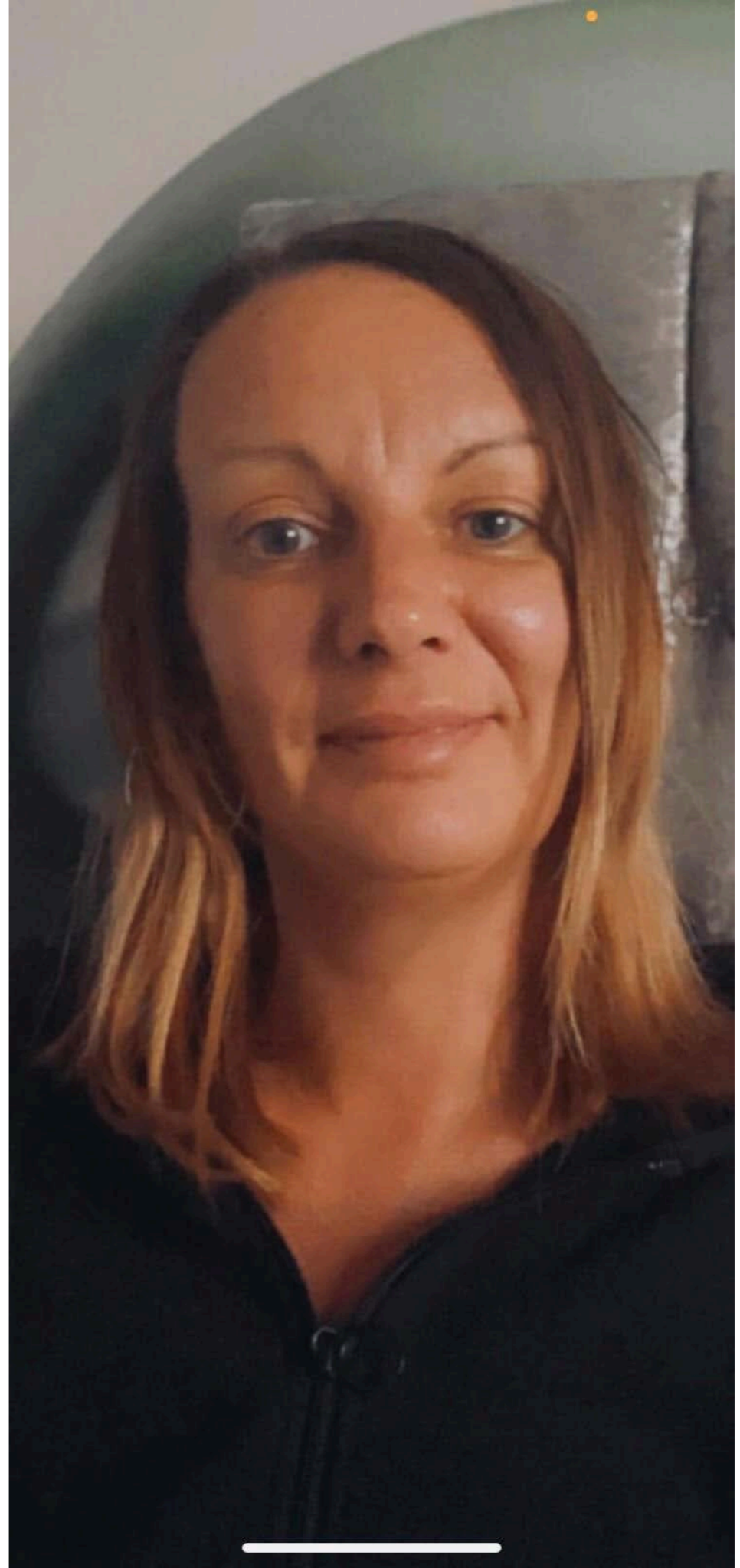
james.garforth@ed.ac.uk
AT 8.12A

Kendal Reid

Informatics Teaching Organisation (ITO)

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AT 8.06

What

Functional Programming

- *Haskell:* Computing based on calculation using data structures, without states.
- An introduction to programming and algorithmic thinking.

Logic and Computation

- *Symbolic logic:* Describing and reasoning about information, where everything is either true or false.
- *Finite Automata:* Computing based on moving between states in response to input.

Why

Foundations for Informatics

- A *solid basis* for study of other topics
- Interesting *connections* between FP and CL, and *practical applications*
- Accessible to all students, *regardless of previous background*
- Demonstrates the *intellectual depth* of Informatics: not just technical skills

When & Where

Lectures

FP 2:10–3:00 Monday, Oak LT
FP 2:10–3:00 Tuesday, Oak LT
CL 11:10–12:00 Thursday, Oak LT
CL 2:10–3:00 Friday, Oak LT

Oak LT = Oak Lecture Theatre,
Nucleus Building, King's Buildings
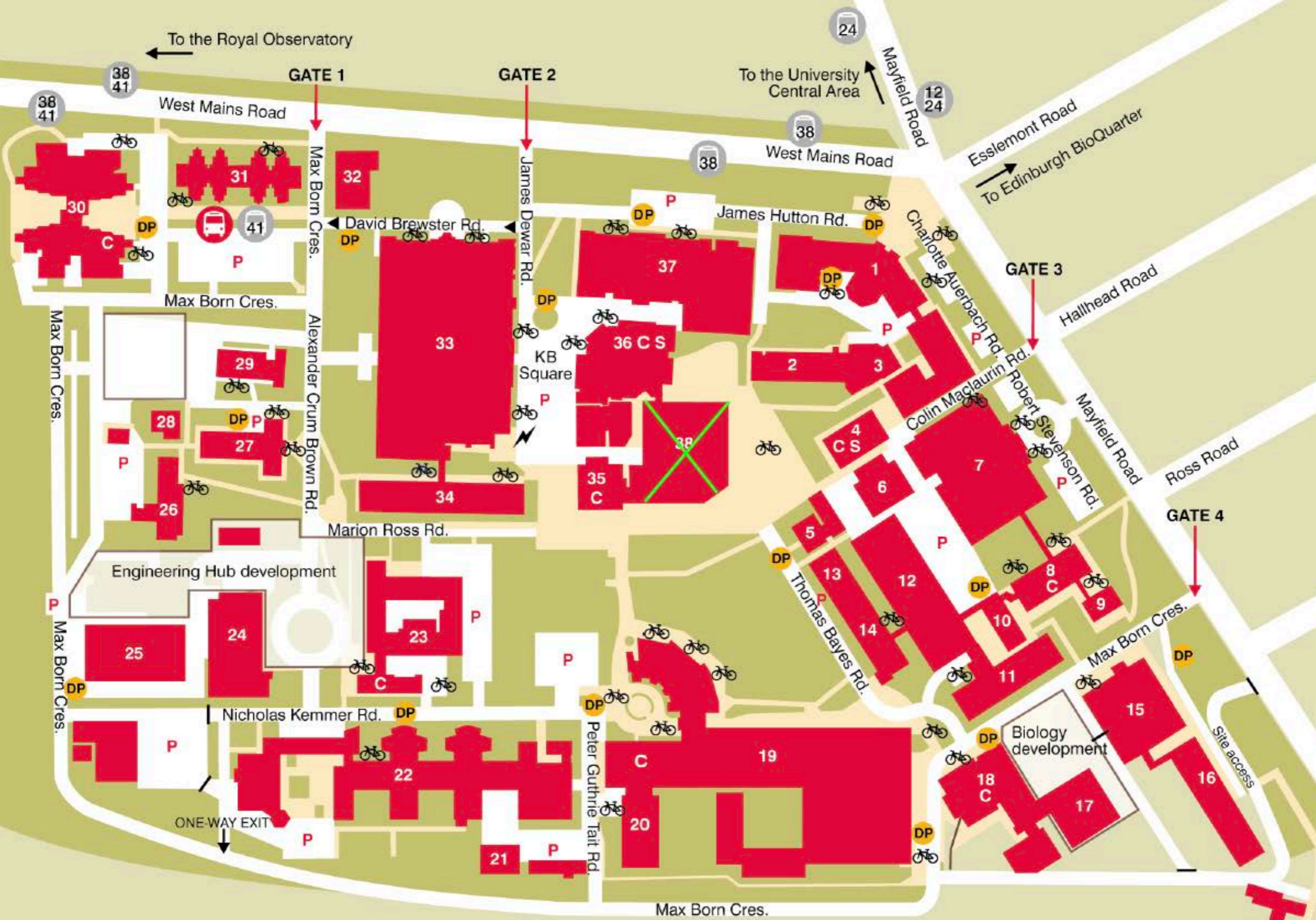
Lectures

FP 2:10–3:00 Monday, Oak LT
FP 2:10–3:00 Tuesday, Oak LT
CL 11:10–12:00 Thursday, Oak LT
CL 2:10–3:00 Friday, Oak LT
except for weeks 1-2, some FP⇔CL

Oak LT = Oak Lecture Theatre,
Nucleus Building, King's Buildings

To the Royal Observatory ←

GATE 1

GATE 2

To the University Central Area ↑

To Edinburgh BioQuarter →

West Mains Road

Mayfield Road

Esslemont Road

West Mains Road

James Hutton Rd.

GATE 3

Hallhead Road

Charlotte Auerbach Rd.

Robert Stevenson Rd.

Colin Maclaurin Rd.

Mayfield Road

Ross Road

GATE 4

Max Born Cres.

David Brewster Rd.

James Dewar Rd.

Max Born Cres.

Max Born Cres.

Max Born Cres.

Alexander Crum Brown Rd.

Marion Ross Rd.

Engineering Hub development

Nicholas Kemmer Rd.

ONE-WAY EXIT

Peter Guthrie Tait Rd.

Thomas Bayes Rd.

Biology development

Site access

KB Square

31
32
30
C
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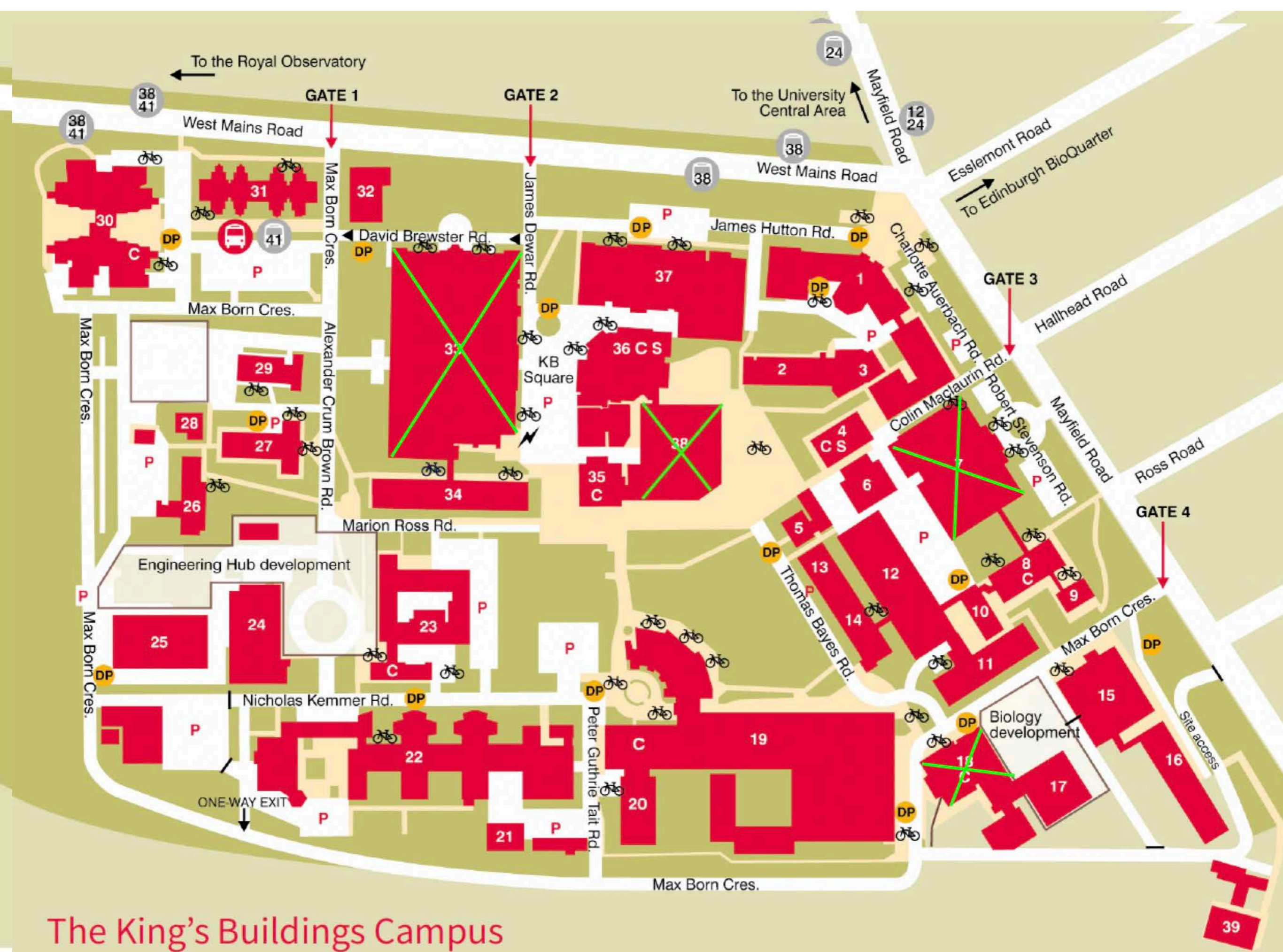
Max Born Cres.

The King's Buildings Campus

Lectures

FP 2:10–3:00 Monday, Oak LT
overflow Elm LT
FP 2:10–3:00 Tuesday, Oak LT
overflow Larch LT
CL 11:10–12:00 Thursday, Oak LT
overflow Swann LT
CL 2:10–3:00 Friday, Oak LT
overflow Sanderson LT1 (Week 1)
+ Joseph Black LT250 (Weeks 2-11)
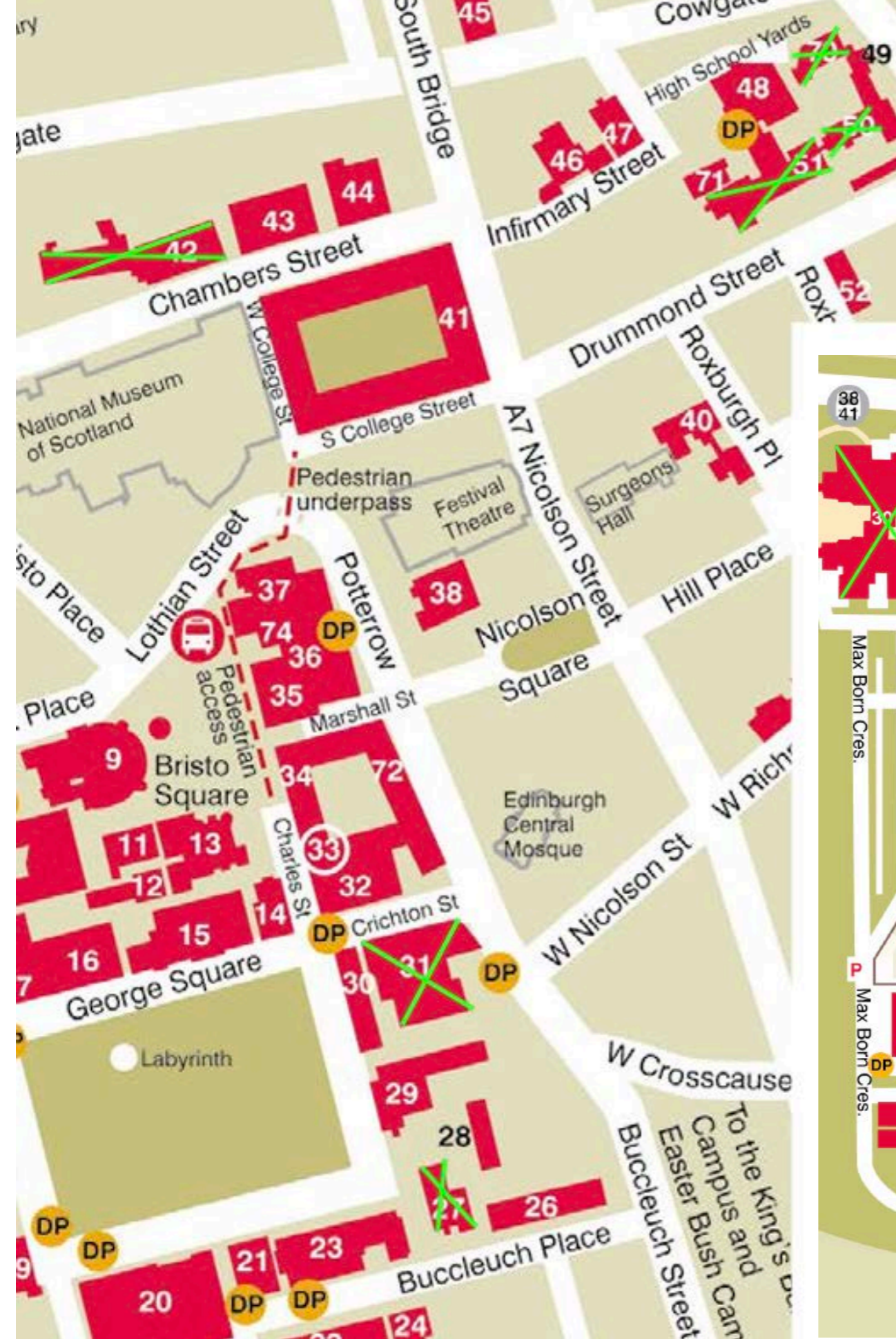
The King's Buildings Campus

Tutorials

exercises issued: noon Tuesday (week n)
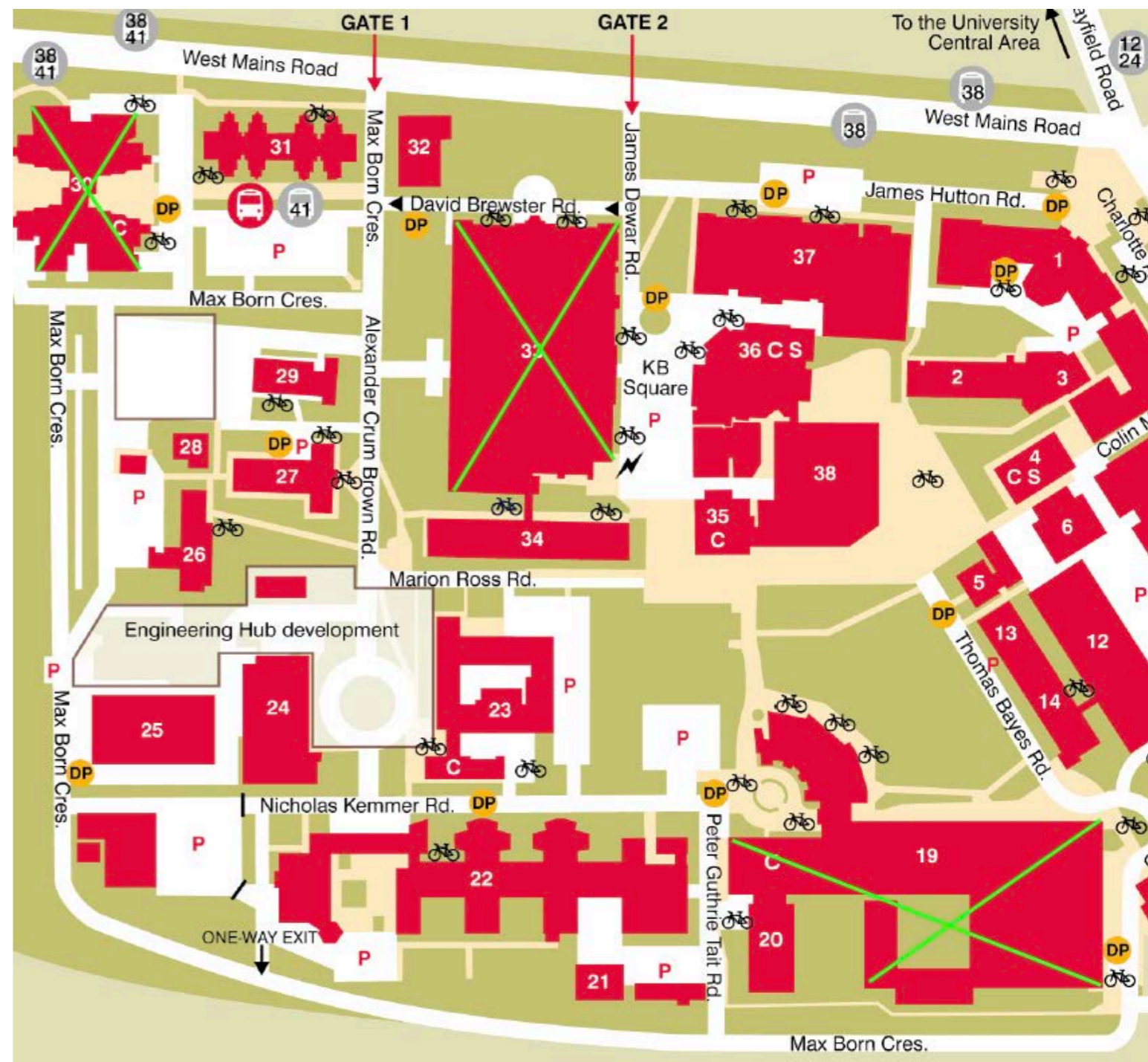due in: noon Tuesday (week $n+1$)

separate exercises for FP and for CL

meeting: 90 minutes in small groups
Thursday and Friday, starting in week 2

6 locations in Central Area   *3 locations in King's Buildings*

Drop-in Labs

optional, good place to get help in person every weekday
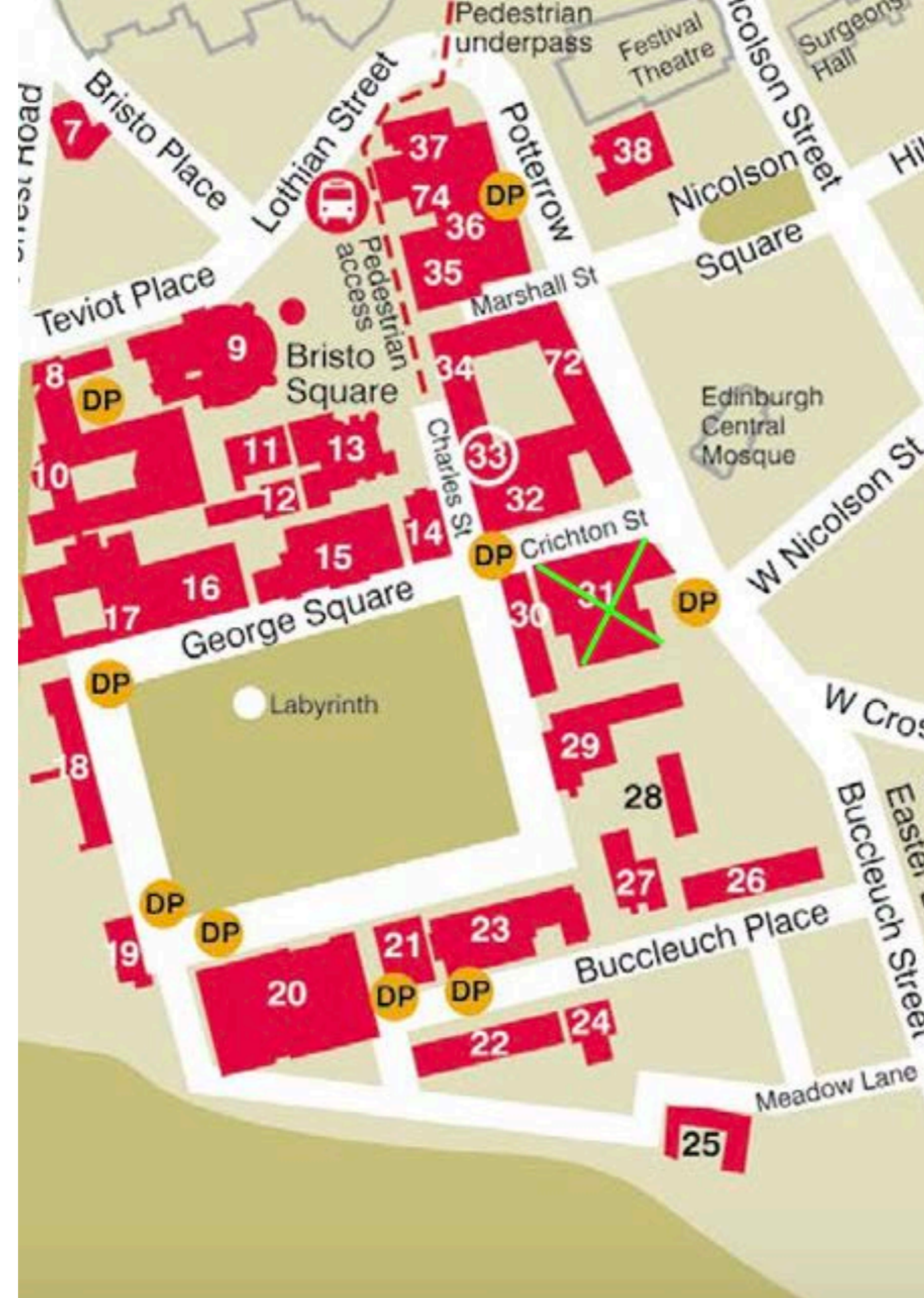
16:10–18:00 Monday-Friday, AT 6.06
15:10–16:00 Monday, HBB Classroom 4
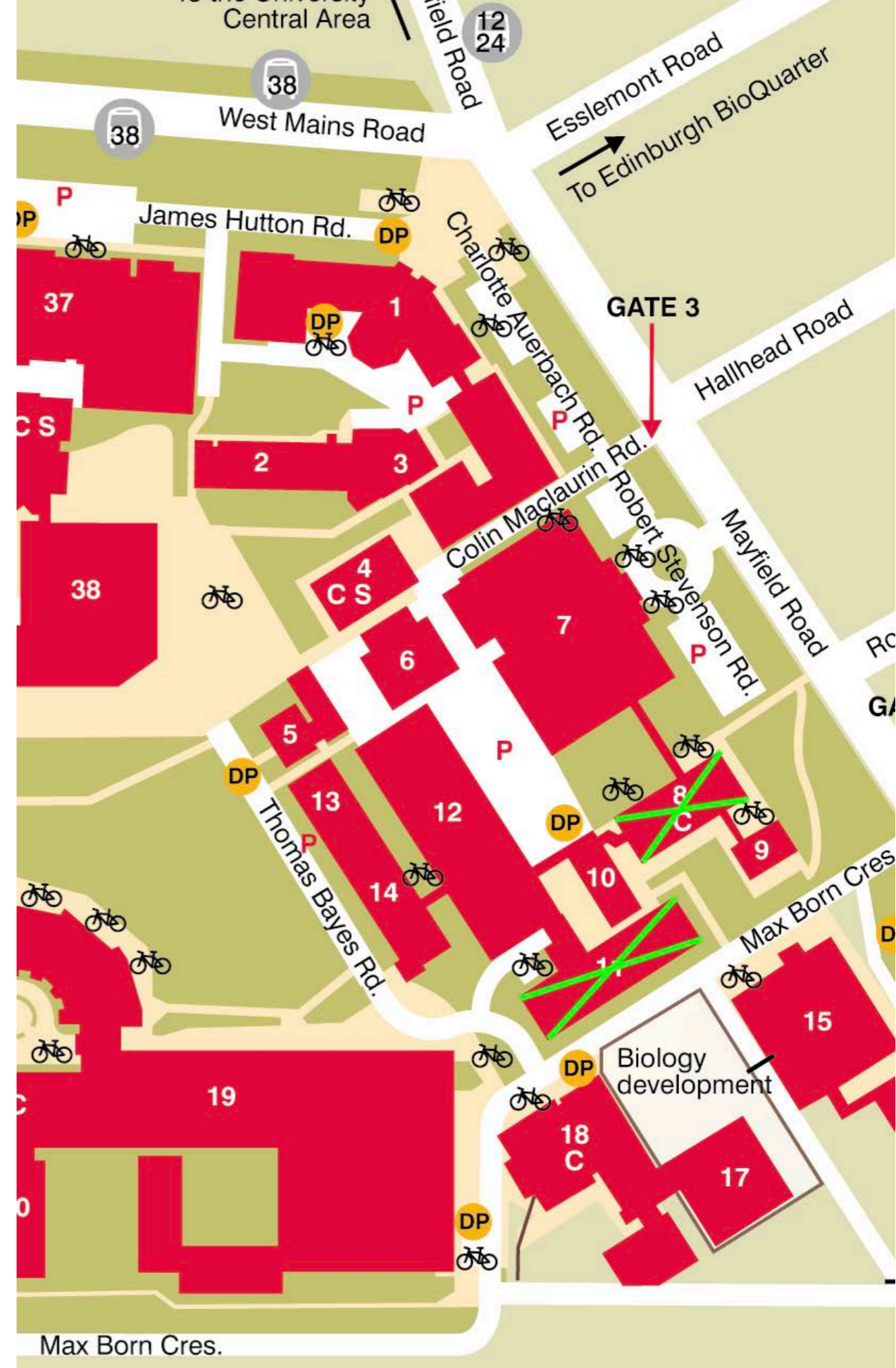16:00–17:00 Monday, ALR Classroom 10

AT = Appleton Tower
HBB = Hudson Beare Building
ALR = Alrick Building

Central Area

King's Buildings

Learn + Course Webpage

Everything about the course will be published on the course's Learn page and course webpage

- Organisational information: when & where

- Lecture slides, reading assignment, tutorial exercises, solutions

- Programming competition

- Other resources

How

Donald Sannella · Michael Fourman
Haoran Peng · Philip Wadler

Introduction to Computation

Haskell, Logic and Automata

UTiCS

Springer

- Electronic copy
  The university library
  (Learn > Library Resources)
  PDF, not EPUB!

- Springer: £29.99

- Blackwells: £25.49
  using 15% student discount

- Amazon: £26.50

Assessment

FP *quiz*, due 12.00 Wednesday
CL *quiz*, due 12.00 Saturday
FP & CL *tutorial*, due 12.00 Tuesday
tutorial meeting Thursday or Friday

each week, starting week 2

Assessment

FP *quiz*, 1 point each
CL *quiz*, 1 point each
FP *tutorial*, 4 points each
CL *tutorial*, 4 points each
each best 8 of 10

Any questions?

Please ask questions!

- Ask in lectures
- Ask other students
- Ask demonstrators during labs
- Ask your tutor during tutorials
- *Ask in the Piazza online forum*

Do the work

You *must* listen to the lectures each week *before* the tutorial!

You *must* do the assigned reading each week *before* the tutorial!

You *must* do the tutorial exercises each week *before* the tutorial!

You will only receive marks for coursework if you *attend* the tutorial.

You will fail the course if you don't do the work!

Common Marking Scheme

A1   90-100   Excellent   D   40-49 Pass
A2   80-89   Excellent   E   30-39   Marginal Fail
A3   70-79   Excellent   F   20-29   Clear Fail
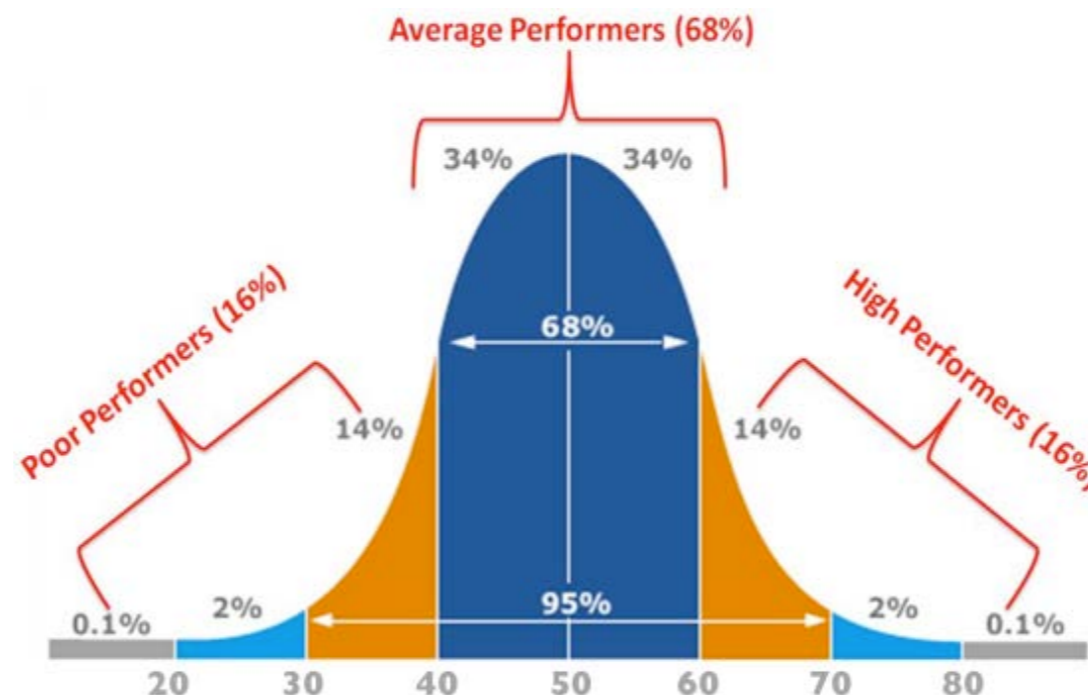B   60-69   Very Good   F   10-19   Bad Fail
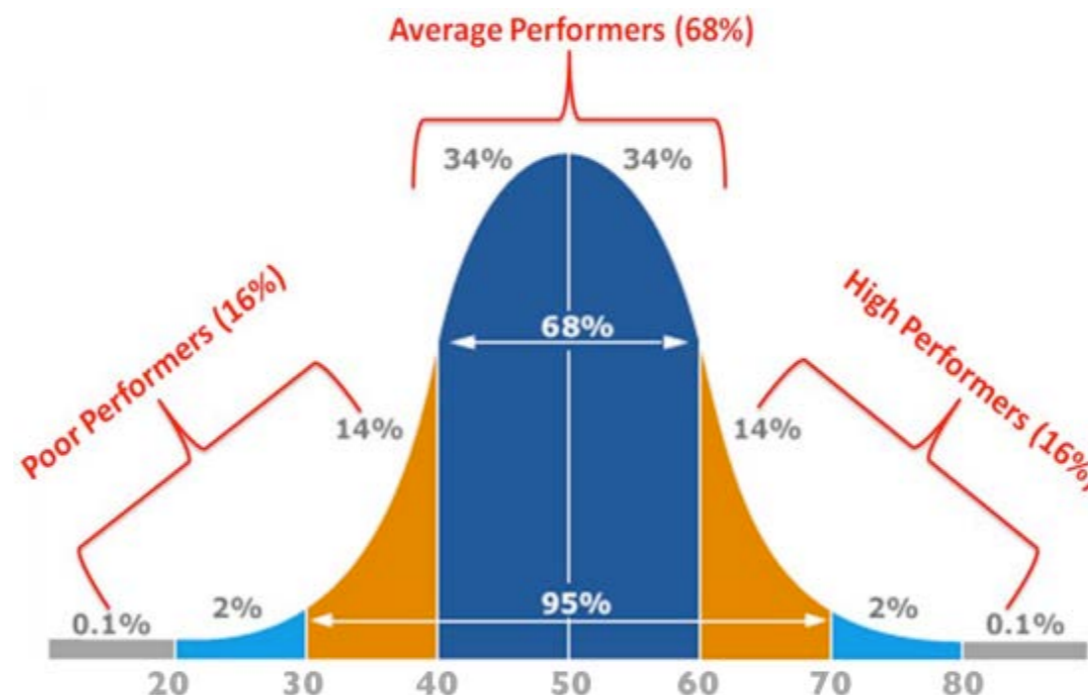C   50-59   Good   G   0-9   Bad Fail

Common Marking Scheme

You are expected to get 3/4 on tutorials
Optional questions are optional!

Good Scholarly Practice

You may *collaborate*, but you are responsible for knowing the material.

You must *pass* Inf1A to progress.

The *School Academic Misconduct Officer* will contact you if you break the rules. It will go into your record.

Good Scholarly Practice

Your *mark* in Inf1a has *no* effect on your final degree classification.

What you *learn* in Inf1a has a *huge* effect on your final degree classification.