

Dear Student

Congratulations on getting an offer of a place at St Catherine's to read Computer Science.

We would like to suggest some reading in preparation for your courses in the coming year.

Have a look at the following book, which is the main text for your Functional Programming course in the first term:

- Introduction to Functional Programming using Haskell, by Richard Bird, Prentice Hall.

You can download the Glasgow Haskell Compiler from <http://www.haskell.org/ghc/>. Use the interpreter GHCi to write a few little programs, for example to answer some of the exercises in the above book.

You should look at some of the bridging material available from <https://www.maths.ox.ac.uk/study-here/undergraduate-study/practice-problems>, particularly if you have not done Further Maths A Level. This material is useful for filling in any gaps in your knowledge.

If you have time, it would be useful to look at the following books, which cover other courses:

- Discrete Mathematics (older additions are fine, and can be much cheaper), by K. A. Ross and C. R. B. Wright.
- Introduction to Algorithms, by Thomas Cormen, Charles Leiserson, Ronald Rivest and Cliff Stein, MIT Press and McGraw-Hill. Chapters 1-4, 6-8, and 10-12, excluding the starred sections.
- The Basics of Logic Design, J. L. Hennessy and D. A. Patterson, available from <https://spivey.orient.ox.ac.uk/dswiki/images-digisys/e/e4/Patt-Henn-Appendix-C.pdf>
- Programming Pearls, by Jon Bentley.
- *Thinking about Programs*, Gavin Lowe, Chapters 1-6 and 14-16 (more if you have time). This is a draft textbook. (You should have received a PDF copy of this via email. Contact admissions@stcatz.ox.ac.uk if not.)

The last two books both assume you have some familiarity with imperative programming. If this is not the case for you, please get in touch with us directly for alternative suggestions.

You might also want to look at the Department of Computer Science's website at: <http://www.cs.ox.ac.uk>, particularly the information relating to your course.

We are looking forward to teaching you at St Catherine's.

Gavin Lowe
Christoph Haase
Tutors in Computer Science