

Introduction to Population Biology.

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This is a course on basic population biology, with applications to ecology and epidemiology. You will find the previous year lectures on <http://www.ictp-saifr.org/mathbio2>

1. Single Species,
2. Predation,
3. Competition;
4. Epidemiology;
5. Spatial Ecology,
6. Alternative States,

Suggested Readings

If you have a background in physics or mathematics:

J. Murray : Mathematical Biology I (Springer, 2002), chapters 1, 3 10 and 11.

N. F. Britton, Essential Mathematical Biology (Springer,2003).

If you have a background in biology

N. J. Gotelli, A Primer of Ecology (Sinauer, 2001, third edition), chapters 1, 2, 5 and 6

If you think that you need to revise your knowledge on calculus, you may want to take a look at

S. P. Otto and T. Day, A Biologist's Guide to Mathematical Modeling in Ecology and Evolution (Princeton U. Press, 2007).