GEOG 3006 Advanced GIS
Dr Jim Wright

In a nutshell

Geographical Information Systems – or GIS – is technology that is used to manipulate digital geographic data. In this optional course, we build on the foundations laid down in an earlier introductory GIS course, giving our students the chance to really get their teeth into the technology. Using GIS is a key skill for both human and physical geographers. Human geographers are interested in understanding postcode geographies and neighbourhood characteristics. For physical geographers, environmental processes like deforestation, erosion and pollutant dispersion can be analysed with GIS. GIS can also link together the human and physical 'halves' of geography by overlaying population onto flood risk, say.
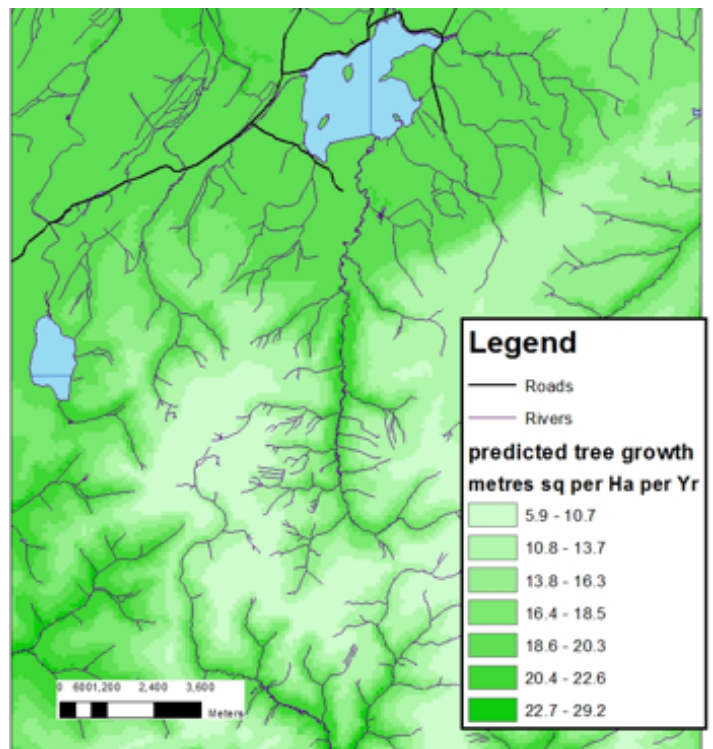
Hands-on practical work

The course involves plenty of hands-on practical experience of using GIS software. Amongst other tasks, human geographers get a chance to measure green space access in urban areas with GIS, whilst physical geographers get a chance to model tree growth for forestry.

GIS and employment

According to research firm Daratech, the GIS technology industry is estimated to be worth almost $5 billion worldwide as of 2011, with industry growth estimated at 8 to 10% over 2009-11. Some of our students go on to careers in the geospatial industry and for those who do not end up as GIS specialists, understanding how to manipulate digital geographic data remains a key skill valued by employers.

Green space access illustration, as produced by GEOG3006 students in class

Forest growth rates, as modelled by GEOG3006 students in class

www.southampton.ac.uk/geography