# Statistics courses and career pathways

Statistical skills support an extraordinarily wide range of careers. Use the following table to help you plan your course programme and achieve your career aspirations. Please note that these courses are based on the recommendations of popular employers of our graduates and also academic staff within the Department of Statistics.

| Key | |
|---|---|
| **Need to have** | Nice to have |
| *Students considering postgraduate study should do STATS 210 or STATS 225 | |

| Course | Finance | Actuary | Marketing | Market Res | Org Psych | Ecology | Bioinformatics | Med Stats | Statistician (eg, Biometrician) | Academic Research | Education | Government | Ops Research | Engineering | Energy |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Stage One** | | | | | | | | | | | | | | | |
| **STATS 10X** Introduction to Statistics | **Finance** | **Actuary** | **Marketing** | **Market Res** | **Org Psych** | **Ecology** | **Bioinformatics** | **Med Stats** | **Statistician** | **Academic Research** | **Education** | **Government** | **Ops Research** | **Engineering** | **Energy** |
| **STATS 125** Probability and its Applications | Finance | **Actuary** | | Market Res | | Ecology | Bioinformatics | Med Stats | Statistician | **Academic Research** | Education | | **Ops Research** | | **Energy** |
| **STATS 150** Lies, Damned Lies, and Statistics | | | Marketing | Market Res | | | | | | | **Education** | **Government** | | | |
| **Stage Two** | | | | | | | | | | | | | | | |
| **STATS 20X** Data Analysis | **Finance** | **Actuary** | **Marketing** | **Market Res** | **Org Psych** | **Ecology** | **Bioinformatics** | **Med Stats** | **Statistician** | **Academic Research** | **Education** | **Government** | **Ops Research** | **Engineering** | **Energy** |
| **STATS 210***/STATS 225 Statistical Theory/Mathematical Statistics | **Finance** | **Actuary** | | Market Res | | Ecology | **Bioinformatics** | **Med Stats** | **Statistician** | **Academic Research** | Education | | **Ops Research** | Engineering | **Energy** |
| **STATS 220** Data Technologies | Finance | | | Market Res | | Ecology | **Bioinformatics** | Med Stats | Statistician | Academic Research | | Government | Ops Research | | Energy |
| **STATS 255** Intro to Operations Research | | | | | | | | | | | | | **Ops Research** | Engineering | Energy |
| **Stage Three** | | | | | | | | | | | | | | | |
| **STATS 301** Stat. Prog. & Modelling using SAS | Finance | Actuary | | Market Res | | | | **Med Stats** | Statistician | Academic Research | | **Government** | | | |
| **STATS 302** Applied Multivariate Analysis | | | Marketing | **Market Res** | Org Psych | **Ecology** | **Bioinformatics** | Med Stats | Statistician | Academic Research | | | | | Energy |
| **STATS 310** Intro to Statistical Inference | **Finance** | **Actuary** | | | | | | **Med Stats** | Statistician | **Academic Research** | | | | | Energy |
| **STATS 320** Applied Stochastic Modelling | Finance | Actuary | | | | | | | | **Academic Research** | | | **Ops Research** | | Energy |
| **STATS 325** Stochastic Processes | Finance | Actuary | | | | | | | | Academic Research | | | **Ops Research** | | Energy |
| **STATS 326** Applied Time Series Analysis | **Finance** | | | Market Res | | | | | | Academic Research | | Government | Ops Research | | **Energy** |
| **STATS 330** Statistical Modelling | Finance | Actuary | Marketing | **Market Res** | Org Psych | **Ecology** | **Bioinformatics** | **Med Stats** | **Statistician** | **Academic Research** | **Education** | **Government** | | Engineering | |
| **STATS 331** Introduction to Bayesian Statistics | | | | | Org Psych | Ecology | Bioinformatics | | | **Academic Research** | | | | | |
| **STATS 340** Design & Analysis of Surveys & Exp. | | | Marketing | **Market Res** | **Org Psych** | **Ecology** | Bioinformatics | **Med Stats** | **Statistician** | **Academic Research** | **Education** | **Government** | | Engineering | |
| **STATS 370** Financial Mathematics | **Finance** | **Actuary** | | | | | | | | | | | **Ops Research** | | Energy |
| **STATS 380** Statistical Computing | | Actuary | | | | Ecology | **Bioinformatics** | Med Stats | Statistician | **Academic Research** | | | **Ops Research** | | Energy |