# Statistical Physics

Home Department: Physics
Faculty of Science

## Description of focal area

Statistical physics uses sophisticated maths and simulations to explore and understand the physics underlying everything from quantum mechanics to phase transitions to factory nuts and bolts.

| BDatSci | | | |
|---|---|---|---|
| **Focal area: Statistical Physics** | | | |
| **First year (128 credits)** | **Second year (128 credits)** | **Third year (128 credits)** | **Fourth year (132 credits)** |
| **Compulsory modules** Computer Science 114(16), 144(16) Data Science 141(16) Mathematics 114(16), 144(16) Probability Theory and Statistics 114(16) Physics 114(16), 144(16) | **Compulsory modules** Data Science 241(16) Computer Science 214(16), 244(16) Mathematics 214(16) Mathematical Statistics 214(16), 245(8), 246(8) Physics 224(16), 254(16) | **Compulsory modules** Mathematical Statistics 312(16) Computer Science 315(16), 343(16) Data Science 316(16), 346(16) Physics 314(16), 344(16), 334(16) | **Compulsory modules** Introduction to Statistical Learning 441(12) Statistical Physics B 441(16) Bayesian Physics 441(8) or Dynamic systems and complexity 441(8) Lagrange and Hamilton mechanics 441(16) Applied Markov processes 441(16) Stochastic Simulation 441(12) Time series analysis 441(12) Data Science Research Assignment 441(40) |