# DEPARTMENT OF MATHEMATICS AND APPLIED MATHEMATICS
# PRESCRIBED AND RECOMMENDED TEXTBOOKS
# For 1st Semester 2019

## Honours modules

| **Module;**<br>***Author of book** | **Lecturer of 2019**<br>**Title of book & edition** | **Publisher & year** | **ISBN** |
|---|---|---|---|
| **WTW 710**<br>**Functional Analysis 710**<br><br><u>Prescribed book</u>:<br><br>*Kreyszig E | *Dr JH van der Walt*<br>*012 420-2819*<br><br>Introductory functional analysis with applications (IE) | John Wiley, 1989 | 978 047 150459 7<br>0 471 50459 9 |
| **WTW 712**<br>**Modern portfolio theory 712**<br><br><u>Recommended book</u>:<br><br>*Hull JC | *Prof E Maré,*<br>*012 420-2835*<br><br>Options, futures, and other derivatives 8ed (IE) | Pearson Education, 2012 | 978 0 273 75907 2<br>0 273 75907 8 |
| **WTW 724**<br>**Axiomatic Set Theory and Mathematical Logic 724** | *Prof JG Raftery,*<br>*012 420-3571*<br><br>*No book* | | |
| **WTW 731**<br>**Algebra 731**<br><br><u>Recommended book</u>:<br>*Martin Isaacs I | *Dr T Lê*<br>*012 420-5445*<br><br>Algebra: a graduate course | Brooks Cole / Cengage Learning | 978 0 5341 9002 6 |
| **WTW 732**<br>**Mathematical Models of Financial Engineering 732**<br><u>Recommended book:</u><br><br>*Hull JC | *Prof E Maré,*<br>*012 420-2835*<br><br>Options, futures, and other derivatives 8ed (Global ed) | Pearson Education, 2012 | 978 0 273 75907 2<br>0 273 75907 8 |

| | | | |
|---|---|---|---|
| **WTW 733**<br>**Numerical Analysis 733** | *Dr M Chapwanya,*<br>*012 420-2837* | | |
| Prescribed book:<br><br>*Strikwerda JC | Finite difference schemes and partial differential equations 2ed | Society for Industrial & Applied Mathematics (SIAM), Philadelphia, 2004 | 978 0 898 71567 5<br>0 89871 567 9 |
| **WTW 734**<br>**Measure Theory and Probability 734** | *Prof M Sango,*<br>*012 420-2795* | | |
| Prescribed book:<br><br>*De Barra G | Measure theory and integration 2ed | Woodhead Publishing, 2003 | 978 190 427504 6<br>1 904 27504 4 |
| Recommended book:<br>*Capinsky M, Kopp PE & Kopp E | Measure, integral and probability 2ed | Springer (SUMS), 2004 | 978 185 233781 0 |
| **WTW 735**<br>**Main principles of analysis in applications 735** | *Prof NFJ van Rensburg,*<br>*012 420-2740*<br><br>*No book* | | |
| **WTW 750**<br>**Mathematical Optimization 750** | *Prof MK Banda*<br>*012 420-2544* | | |
| Prescribed book:<br><br>*Forst W & Hoffmann D | Optimization – theory and practice | Springer-Verlag, 2010 | 978 038 778976 7 |
| **WTW 772**<br>**Mathematical Methods and Models 772** | *Prof JM-S Lubuma,*<br>*012 420-2222* | | |
| Recommended book<br><br>*Brauer F & Castillo-Chávez C | Mathematical Models in Population Biology and Epidemiology | Springer 2001<br>Text in Applied Mathematics 40 | 978 038 798902 0<br>0 387 98902 1 |