



University of Pretoria Yearbook 2019

Food engineering 353 (FST 353)

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| Qualification | Undergraduate |
| Faculty | Faculty of Natural and Agricultural Sciences |
| Module credits | 18.00 |
| Programmes | BSc Food Science |
| Prerequisites | FST 260 or permission from the HOD. |
| Contact time | 1 practical per week, 3 lectures per week |
| Language of tuition | Module is presented in English |
| Department | Consumer and Food Sciences |
| Period of presentation | Semester 1 |

Module content

Lectures: Mass and energy balance. Heat transfer theory: Convection, conduction and radiation. Energy for food processing. Fluid flow and rheology. Unit operations: materials handling, cleaning, sorting, grading, peeling, disintegration, separation (e.g. membrane technology), pumping, mixing and forming, heating, concentration, drying, extrusion, refrigeration, freezing. Tutorials/practicals: Calculations on mass and energy balances, psychrometry, refrigeration and freezing.

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