Beer and Brewing Introduction Historical perspective Current developments Legislation

The Brewing Process Overview Beer types The brewing process Wort composition High-gravity brewing Glossary of brewing terms

The Biochemistry of Fermentation

Overview Mass balance Assimilation of wort nutrients Carbohydrate dissimilation Requirement for oxygen Ethanol tolerance Formation of flavour compounds

Brewing Yeast Morphology, cytology and cellular function Taxonomy and differentiation Genetics – genome, cell cycle and modification

Fermentation Systems General properties of fermentation vessels Fermentation rooms Traditional fermentation systems Large-capacity fermenters

Fermentation Management Wort collection Post-collection additions Monitoring fermentation progress Fermentation control Fermentation management Recovery of carbon dioxide Yeast recovery Fermenter run-down Secondary fermentations

Yeast Management Laboratory yeast storage and supply Yeast propagation Yeast handling in the brewery Assessing yeast condition Surplus yeast

Microbiology Product spoilage Minimizing the risk Sampling and testing