**Title: R for Financial Management**

Table of content (draft)

1. **Why financial management and data science (introduction)**

* Why/What is financial analytics
* Why/What is analytics
* Why/What is R

1. **Sources of financing**

Gist: capital markets, equity vs debt, IPO

Practical: working with stock market data

How to get data

How to look at data (visualization)

How to use data (e.g. share prices) to get insights

Summary/ infographic

1. **Financial statements analysis (ratio analysis)**

Gist: ratio analysis (operations, investing, financing, dividends area), how to choose “right” ones

Practical: working on “exemplar” companies with ratios (e.g. cross-sectional analysis, timeseries), visualization

Summary/ infographic

1. **Cash flow management**

Gist: cash flow management basics, reconciliation – e.g. bank reconciliation, cash flow analysis, cash flow projections, preparation and presentation of cash flow statement

Practical: address each of the above sections with emphasis on graphical presentation to help management decision making

Summary/ infographic

1. **Financial health**

Gist: putting the above together for management and stakeholder disclosure: duPont, financial health of the firm, intro budgeting/ projections

Practical: address each of the above sections with emphasis on graphical presentation to help decision making, dashboards, Shiny

Summary/ infographic

1. **Capital budgeting**

Gist: intro to management accounting, time value of money, NPV, IRR, etc.

Practical: address each of the above sections with emphasis on graphical presentation to help decision making

Summary/ infographic

1. **Financial Planning and Forecasting Financial Statements**

Gist: external stakeholders focus, forecasting, valuation examples

Practical: address above, focus on visualization

Summary/ infographic

1. **Cost of capital and capital structure**

Gist: cost of capital, calculation, intro optimum capital structure,

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Practical: address above, focus on visualization

Summary/ infographic

1. **Reporting and corporate governance**

Gist: AASB vs GAAP requirements for reporting, continuous reporting, communication with stakeholders, corporate governance

Practical: creating reports (e.g. dashboarding), intro Shiny, visualization

Summary/ infographic

**Appendix**

R basics – tidyverse

Data mining basics – API to data sources

Collection of R Packages to get financial data

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