

The areas of queueing analysis and simulation are neatly juxtaposed, and both would take the reader with no previous exposure into the subject matter well, with clear graphs and diagrams.

The text is well presented and clearly written, and the author can feel satisfied in terms of meeting his stated objectives. Examples do range widely and also include an area often neglected, that of public policy. Numerous and useful examples are included after each section, with answers to selected examples. Particularly valuable were the checklist and glossary, which allow a quick review of each chapter by reference to highlighted sections. Given that part of undergraduate and professional education is the seeking out of further knowledge, it seems unfortunate that no references to other texts are provided, particularly where the topics were covered in less detail. Supplementary material, not made available to the reviewers, includes chapters on dynamic programming and heuristics (which can be photocopied for distribution to students); instructors' manual (with full solutions to all examples, artwork to aid transparency preparation etc.); students' solution manual (with full answers to selected examples); and a free site licence for adopters of the personal computer software package 'Quantitative Systems for Business'. The quality and cost of this latter item are not known. At £16.95, the text represents good value, and the limitations identified could readily be overcome by the teacher with a small amount of supplementary material.

PHILIP MOORE and JOHN HALLETT

Introductory Management Science (2nd Edition)

G. D. EPPEN, F. J. GOULD and C. P. SCHMIDT

Prentice-Hall, Englewood Cliffs, NJ, 1987. 822 pp. £16.95

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The teaching of management science is a very demanding task and a challenge for education specialists. The heterogeneity of materials and methods is of a high order.

The reviewer has to confess ignorance of the experience of undergraduate OR, as in the UK at least, courses used to be at postgraduate level. However, by reading Eppen, Gould and Schmidt one feels confident that management science teaching at undergraduate level makes good sense, and probably not only for management scientists elect, but also for intending mathematicians and computer specialists.

The book is a delightful amusement park for OR theory and theoretic applications—cases are still a weak spot, although there is an explicit effort to keep students on the ground. Scenarios of real-life situations are dramatic but not realistic, a common weakness in teaching OR; yet it is a much better way for the uninitiated to get to the pit than mathematical abstractions, where even the assumptions are negotiable. In the presentation of the teaching material, the authors use the American style of simple dialogues and thought, an inevitable recourse for a basically American readership. This may be counted as a weak point, since everybody else receives a culture shock. It is a great pity that historic problems/models do not appear in their original formulation, but at the same time it is good that the basic references are there as well as a very practical index.

A very positive feature of the book is the extensive computer presentation of models (spreadsheets is the US neologism) as well as a constant review of concepts and short exercises. For the teacher, the book is a useful tool, easily adjustable to the level of competence and mathematical ability of the students, as the solutions are not limited to the mathematical techniques but extend to pictorial models, graphical/geometric solutions and computer-model choices. Here it may be pointed out that some sensitive points, e.g. the interpretation of the dual problem, are not as extensively analysed, although they are of high educative value.

The material included is the conventional selection of various species of programming, inventory control, queues, decision theory, simulation and heuristics. It is a good thing that the traditional production engineering problems are eliminated, but perhaps they should have been replaced with a chapter on finance. Linear programming is so expansive that one gets the impression of hastiness in all other chapters. Lastly, decision theory is excellently presented and should be read by all managers, even though this is a basically scholastic book.

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