

IB349-12 Operational Research for Strategic Planning

20/21

Department

Warwick Business School

Level

Undergraduate Level 3

Module leader

Frances O'Brien

Credit value

12

Module duration

10 weeks

Assessment

100% coursework

Study location

University of Warwick main campus, Coventry

Description

Introductory description

To develop an understanding of the range of methods and models available to support the development of effective strategic decisions.

To equip students with the knowledge and skills to identify and apply a selection of methods that are appropriate for supporting the development of effective strategic decisions.

To instill in students an appreciation of how the methods can be incorporated within the planning process.

[Module web page](#)

Module aims

To develop an understanding of the range of methods and models available to support the development of effective strategic decisions.

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Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

A conceptual model of the strategic development process is introduced which identifies a set of essential elements for example: vision development, strategy creation, strategy rehearsal and evaluation, performance measurement. Frameworks, methods and models to support the development process include but are not limited to:

- Corporate modelling
- System Dynamics for policy design
- Strategy formulation approaches including SWOT / TOWS analysis
- Gaming
- Scenario planning
- Visioning approaches
- Performance measurement

The module will focus on a selection of methods; this selection may vary from year to year. The teaching style emphasises the practical application of techniques for strategy support through the use of case studies and group exercises.

Learning outcomes

By the end of the module, students should be able to:

- Understand the range of methods and models available to support the development of effective strategic decision making.
- Appreciate how the methods can be incorporated within the planning process.

Indicative reading list

Core Text:

F A O'Brien and R G Dyson, Supporting Strategy: Frameworks, Methods & Models, Wiley, 2007.

Journal article lists are included with each lecture eg:

D O'Connell, K Hickson, A Pillutla (2011) Organisational visioning: An integrative review. Group & Organization Management 36 (2): 103-125

G Wright & G Cairns, Scenario thinking: Practical approaches to the future, Palgrave Macmillan, 2011

RG Dyson (2004) 'Strategic development and SWOT analysis at the University of Warwick', European Journal of Operational Research, 152, 2004, 631-640.

Maani KE and Cavana RY, Systems thinking and modelling: understanding change and complexity, Prentice Hall, 2000.

Sterman JD, Business Dynamics: systems thinking and modelling for a complex world, London: Irwin/McGraw-Hill, 2000.

Warren K, Competitive Strategy Dynamics, Chichester: Wiley, 2002.

Subject specific skills

Use a selection of the methods covered on the module in practical situations.

Transferable skills

Demonstrate written, analytical and verbal communication skills.

Utilise and develop analytic skills.

Convey their understanding of key concepts using different forms of communication (eg write reports, make presentations).

Use information technology(e.g. WP, www, specialist packages).

Work with others (e.g. teamwork).

Study

Study time

Type	Required
Lectures	10 sessions of 2 hours (17%)
Seminars	9 sessions of 1 hour (8%)
Private study	33 hours (28%)
Assessment	58 hours (48%)
Total	120 hours

Private study description

Private Study.

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group A2

	Weighting	Study time
Individual Assignment	90%	49 hours
Participation	10%	9 hours

Weighting

Study time

Participation in activities on a weekly basis via my.wbs

Feedback on assessment

Formative feedback is provided to groups of students on a (non-assessed) presentation of the case company used in their individual assessment. Summative feedback is provided via a feedback form attached to the submitted assessment document.

Availability

Courses

This module is Optional for:

- Year 3 of UESA-HN11 BSc Engineering and Business Studies
- UIBA-MN34 Law and Business Four Year (Qualifying Degree)
 - Year 3 of MN34 Law and Business Studies Four Year (Qualifying Degree)
 - Year 4 of MN34 Law and Business Studies Four Year (Qualifying Degree)
- Year 3 of UIBA-N211 Undergraduate Information Systems Management and Innovation
- Year 4 of UIBA-N214 Undergraduate Information Systems Management and Innovation (with Intercalated Year)
- Year 4 of UIBA-N140 Undergraduate International Business
- Year 4 of UIBA-N1R1 Undergraduate International Business with French
- Year 4 of UIBA-N1R2 Undergraduate International Business with German
- Year 4 of UIBA-N1R3 Undergraduate International Business with Italian
- Year 4 of UIBA-N1R4 Undergraduate International Business with Spanish
- Year 3 of UIBA-MN31 Undergraduate Law and Business Studies
- UIBA-MN32 Undergraduate Law and Business Studies
 - Year 3 of MN32 Law and Business Studies (Four-Year)
 - Year 4 of MN32 Law and Business Studies (Four-Year)
- UIBA-MN37 Undergraduate Law and Business Studies (Qualifying Degree) with Intercalated Year
 - Year 4 of MN37 Law and Business Studies (Qualifying Degree) with Intercalated Year
 - Year 5 of MN37 Law and Business Studies (Qualifying Degree) with Intercalated Year
- UIBA-MN35 Undergraduate Law and Business Studies with Intercalated Year (3+1)
 - Year 3 of MN35 Law and Business Studies with Intercalated Year (3+1)
 - Year 3 of MN35 Law and Business Studies with Intercalated Year (3+1)
 - Year 4 of MN35 Law and Business Studies with Intercalated Year (3+1)
 - Year 4 of MN35 Law and Business Studies with Intercalated Year (3+1)
- UIBA-MN36 Undergraduate Law and Business Studies with Intercalated Year (4+1)
 - Year 4 of MN36 Law and Business Studies with Intercalated Year (4+1)
 - Year 5 of MN36 Law and Business Studies with Intercalated Year (4+1)
- Year 3 of UMAA-G1NC Undergraduate Mathematics and Business Studies

- Year 4 of UMAA-G1N2 Undergraduate Mathematics and Business Studies (with Intercalated Year)
- Year 3 of UPXA-F3N1 Undergraduate Physics and Business Studies

This module is Option list A for:

- UIBA-N203 BSc in International Management
 - Year 4 of N203 International Management
 - Year 4 of N203 International Management
- Year 3 of UIBA-N201 BSc in Management
- Year 4 of UIBA-N202 BSc in Management (with Intercalated Year/UPP)
- Year 4 of UPXA-F3ND Undergraduate Physics and Business Studies (with Intercalated Year)

This module is Option list B for:

- UIBA-N201 BSc in Management
 - Year 3 of N230 Management with Finance
 - Year 3 of N250 Management with Marketing
- UIBA-N202 BSc in Management (with Intercalated Year/UPP)
 - Year 4 of N231 Management with Finance (with Intercalated Year)
 - Year 4 of N251 Management with Marketing (with Intercalated Year)
- Year 3 of UIBA-NN35 Undergraduate Accounting and Finance
- UIBA-NN36 Undergraduate Accounting and Finance (with Intercalated Year/Undergraduate Partnership Programme)
 - Year 4 of NN36 Accounting and Finance (Intercalated)
 - Year 4 of NN37 Accounting and Finance (Undergraduate Partnership Programme)