

CH955-10 Decision-Making and Leadership

21/22

Department

Chemistry

Level

Taught Postgraduate Level

Module leader

Nikola Chmel

Credit value

10

Module duration

3 days

Assessment

100% coursework

Study location

University of Warwick main campus, Coventry

Description

Introductory description

This module is one of six that together constitute the Postgraduate Certificate in Transferable Skills in Science. It is intended (but not required) that students taking the Certificate should complete these modules at the rate of two each year. The teaching of transferable skills is implicit in the structure and funding of the training provided by the Doctoral Training Centres. It is part of the fundamental philosophy of these Centres that, as far as possible, skills training is provided in the context of the research being carried out by the PhD student and of its wider potential application. Consequently it is intended that the learning objectives of three of the six modules will be achieved largely through participation in the regular programme of activities of the student's DTC or Department and so have no separate programme of work specifically for that module. The other three each contain a stand-alone activity specifically for that module supplemented by prescribed follow-up activities and augmented by additional training embedded in the day-to-day activities of the DTC. Because the acquisition of these skills develops over time and with practice in their application, many of the learning outcomes are common to several or all of the modules. This module is one of the options that is based upon a course component specific to the module. Because of the nature of the learning process there is no set time-scale during which the material has to be covered. Typically a student taking the full Certificate will complete this module within one academic year. Students from outside the DTCs who are taking less than the full programme

of six modules may more reasonably extend the period over which they achieve the module learning objectives. All students are required to complete this module within the period during which they are registered as full-time or part-time students for the PhD, unless WISC approves a different progression rate.

[Module web page](#)

Module aims

This module is placed in the final year of the Certificate when participants will be looking towards using their research and transferable skills in the wider world of employment. This module will give participants an understanding of the decision-making processes that determine which research is and is not done, and that can also be applied to their own research activity and career planning. It will seek to define what is meant by leadership and its relationship to decision-making so that students can both recognise leadership abilities in themselves and also understand its role in developing excellent research. The material of the module is developed in an industrial context to widen students' appreciation of the value of their research to the community.

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.

The syllabus may be varied with the agreement of WISC.

This module gets the students to focus on decision-making and leadership both in the context of their research and onwards career planning. During a three-day intensive programme it raises awareness of decision-making methodologies many of which are already implicitly practised and encourages them to apply analytical techniques to ground their experiences. This prepares them well for ongoing careers. In peer groupings of this age there is often discomfort with the use of leadership language. This module helps them to become at ease with the use of this terminology and in follow-up activities encourages them to think about their own personal leadership capabilities and their development. The transferability of the university research {decision and leadership} experience is highlighted. Thesis completion planning and onward career choice provide the real life contextual framework which concludes the course.

Decision-making. Functions of decision-making; implicitness of choice and action; freedom of choice; types of decision; analytical, irrational and chance factors in decision-making.

Consideration of possible outcomes in reaching desired goals. Factors driving the making (and avoiding) of decisions. The role of risk in decision-making: SWOT analysis.

Range of applications. Example from the pharmaceutical industry.

MBTI method. Preference dichotomies; shared decision making – effects of individual types and group dynamics. Analysis of group strengths and weaknesses. Determining group type: the “Z” decision-making process.

Application to personal decision-making: constructive use of tension and achieving closure.

Building exercise to experience group decision-making: pros and cons of group decision-making; effects of personal dynamics. Aids to decision-making: de-Bono's hats.

Influencing the outcomes of group decision-making – Leadership. Spheres of influence; influencing others. Motives; types of behaviour, successful and otherwise; consequences and characteristics of behaviour. Consideration of student's own leadership roles.

Other decision-making models. Helping others make decisions: use of SWOT.

Different styles of leadership: determination of own leadership style.

Inter-relationship of decision-making process and leadership: leadership during decision-making; leadership to implement decisions.

Generation of decision-making log for decisions made by student and by others: analysis of factors considered in making decisions and their success or otherwise.

Keeping of leadership log, to include examples and analysis of leadership in the student's research environment and elsewhere.

Learning outcomes

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

- Discuss decision-making methodology and use this in the analysis of decisions.
- Give an account of spheres of influence.
- Apply decision-making towards thesis planning and completion.
- Apply detailed SWOT analysis to personal and professional decisions.
- Discuss factors affecting decision-making processes as a detached observer and as a participant.
- Comment on the decision-making process for drug target area selection in the pharmaceutical industry and demonstrate an awareness of the drug scale-up from lab to industrial batch size.
- Identify personal leadership style.
- To identify and discuss their leadership in aspects of their life whether work life or personal life oriented.
- Be aware of assertive, aggressive and passive behaviours in self and others.
- Use words such a leader, manager, vision, strategy and purpose with increased comfort.

Subject specific skills

N/A

Transferable skills

N/A

Study

Study time

Type	Required
Tutorials	10 sessions of 1 hour (10%)
Other activity	90 hours (90%)
Total	100 hours

Private study description

No private study requirements defined for this module.

Other activity description

Preparation for Intensive course: 20 hours.

Intensive course: 30 hours.

Follow-up group- and course-work: 40 hours.

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group A1

	Weighting	Study time	Eligible for self-certification
Portfolio	100%		No
Portfolio Assignment			

Feedback on assessment

N/A

Availability

Courses

This module is Optional for:

- Year 1 of TCHA-F1PC Postgraduate Certificate in Transferable Skills in Science

This module is Option list A for:

- Year 1 of TCHA-F1PD The Warwick Postgraduate Award in Transferable Skills in Science

This module is Option list B for:

- Year 1 of TCHA-F1PD The Warwick Postgraduate Award in Transferable Skills in Science