

Robotics and Automation

Learning outcomes

1. Identify efficiencies and limitations and provide an in depth evaluation of robotic systems for all pathologies;
2. Develop a business case for the purchase of an automated and robotic system and present it in a clear and informative way;
3. Identify stakeholders in a given organisation, and develop strategies for assembling team(s) to take proposals forward for the purchase of automated and robotic systems;
4. Develop plans for the timely purchase of automated and robotic systems and for their installation and seamless integration into the laboratory setting.

Core Dimensions

CD1 Communication

Since learners are asked to demonstrate knowledge learning outcome 2 will map to level 2 "Communicate with a range of people on a number of matters."

in particular items a-c

- a) communicates with a range of people on a range of matters in a form that is appropriate to them and the situation
- b) improves the effectiveness of communication through the use of communication skills
- c) constructively manages barriers to effective communication

CD2 Personal and people development

Similarly all learning contributes to personal development and again the need to demonstrate knowledge will involve others, thus mapping to level 2 "Develop own skills and knowledge and provide information to others to help their development"

In particular a-c LO 2 will also map to f

- a) assesses and identifies:
 - feedback from others on own work
 - how s/he is applying knowledge and skills in relation to the KSF outline for the post
 - own development needs and interests in the current post
 - what has been helpful in his/her learning and development to date
- b) takes an active part in the development review of own work against the KSF outline for the post with their reviewer and suggests areas for learning and development in the coming year
- c) takes responsibility for own personal development and takes an active part in learning opportunities
- f) offers information to others when it will help their development and/or help them meet work demands.

CD4 Service improvement

LOs 1-3 map to level 3 a, e & f "Appraise, interpret and apply suggestions, recommendations and directives to improve services"

a) identifies and evaluates areas for potential service improvement

e) enables and encourages others to:

- understand and appreciate the influences on services and the reasons why improvements are being made

- offer suggestions, ideas and views for improving services and developing direction, policies and strategies

- alter their practice in line with agreed improvements

- share achievements

- challenge tradition

f) evaluates with others the effectiveness of service improvements and agrees that further action is required to take them forward

Other core dimensions

No specific mapping

Specific Dimensions

Health and Wellbeing HWB8 Biomedical investigations and interventions

The knowledge gained in satisfying these learning outcomes should be equivalent to that required for level 3 "Plan, undertake, evaluate and report biomedical interventions and/or interventions"

a) evaluates relevant information to plan the range and sequence of biomedical investigations/interventions

required and determines:

- the specific procedures to be undertaken

- unusual aspects of cases (including any particular risks)

- the urgency with which procedures need to be carried out

- relevant legislation, policies and procedures

b) selects appropriate methods, techniques, equipment and analytical methods, in line with the resources available and evidence of effectiveness

c) carries out and monitors investigations/interventions in line with established procedures and protocols, taking the appropriate action in the case of incidents which put at risk health and safety or the quality of specimens

d) evaluates the outcomes of investigations/interventions and takes appropriate action in relation to anomalous or poor quality results or insufficient information

e) collates and interprets findings and outcomes and reports them to relevant colleagues in the appropriate format, clearly stating any limitations

f) provides valid information, advice and recommendations in relation to diagnosis, prognosis, treatment and individual management.

General

G2 Development and innovation

All LOs map to

Level 1 "Appraise concepts, models, methods, practices, products and equipment developed by others"

- a) identifies new developments made by others that might be relevant to own area of work
- b) critically evaluates and reviews developments to determine if and how they could be applied within own area of work
- c) proposes the adoption of relevant developments within own work area to relevant decision makers

In addition LOs 1&2 map to level 2a "Contribute to developing, testing and reviewing new concepts, models, methods, practices, products and equipment"

- a) confirms with relevant information sources:
 - the nature of the activities required
 - any particular factors to take into account and selects appropriate ways of developing, testing and reviewing concepts, models, methods, practices, products and equipment