

# ACDICT Discussion:

## ACS Accreditation of ICT Programs

Agenda: Review the ACS approach to accreditation

Consider typical issues that arise in Accreditation

**Emeritus Professor Jenny Edwards**  
**ACS Case Manager**

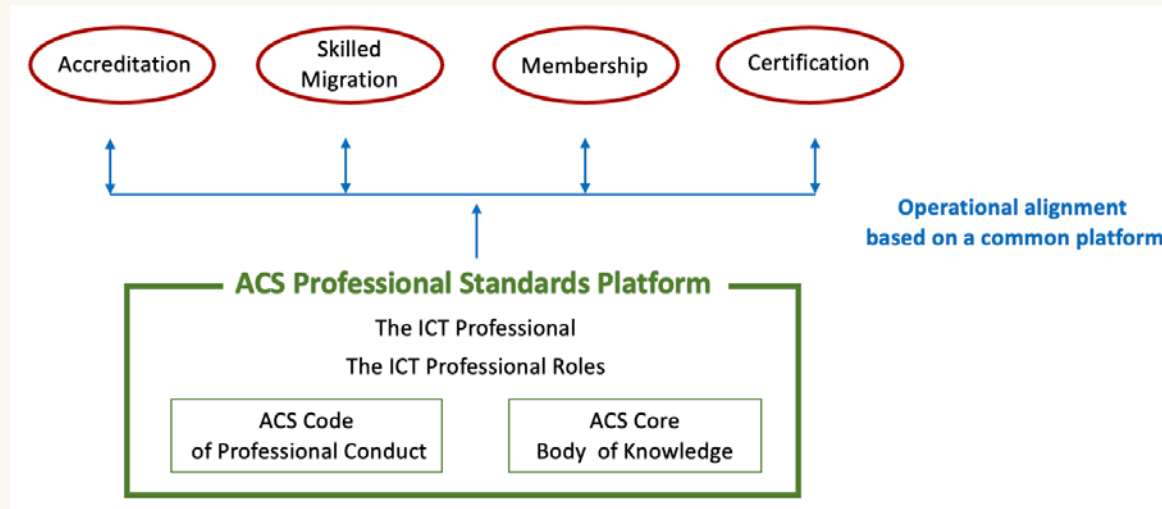
[jenny.edwards@acs.org.au](mailto:jenny.edwards@acs.org.au)

with thanks to Emeritus Professor Craig McDonald

# The Context of ACS Accreditation

**Professional Standards :** The ACS is professional society for ICT in Australia  
(member of Professions Australia, Seoul Accord, IP3, etc.)

Its standards setting and assessment activities are governed by its Professional Standards Board with committees and integrated into a Professional Standards Platform.



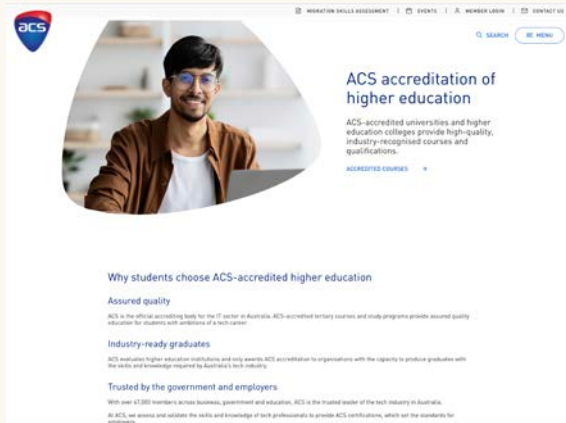
**Purpose of Accreditation :** To improve the professionalism of the ICT industry by working with Higher Education Institutions to develop Programs which produce professional ICT graduates.

\*See ACS Core Body of Knowledge for a discussion of professionalism

# ACS Accreditation Website

<https://www.acs.org.au/cpd-education/acs-accreditation-program.html>

Useful Background Documents:



Accreditation Guide  
Register of Accredited Courses  
(Accreditation Annual Report 2022)

Professional Standards Platform:

Core Body of Knowledge  
Code of Professional Conduct

Accreditation Manual:

Volume 1: Accreditation Process  
**Volume 2: Accreditation Criteria**  
Volume 3: Application Template

# Accreditation Criteria

## 1. the Institution

using ICT discipline-specific criteria within the HESF

## 2. the Program

using ICT discipline-specific criteria within the AQF

### 2.1 Program Design Criteria

### 2.2 Knowledge Criteria:

Professional knowledge and skills (CBoK)

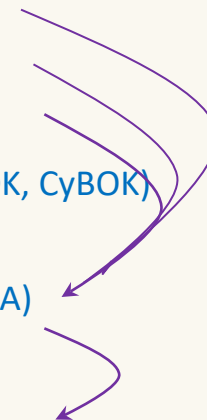
Breadth of ICT knowledge (CBoK)

Depth of knowledge in a particular field of ICT

(ACM, Disciplinary Bodies of Knowledge, eg SWEBOK, BABOK, CyBOK)

### 2.3 Skills for a specified ICT professional role (EU c-CF, SFIA)

### 2.4 Application of knowledge and skills



Let's have a look at the criteria in practice, using the application form (Vol 3)

# Accreditation Application Form :

## 1. Institutional Criteria

Institutional commitment to ICT education

Place of the school in the university

ICT academic leadership - professorial level

staffing - usually 6+ EFT, 3 in the area of course focus

staff qualifications - both ICT and educational

currency (cpd) & engagement, relevant research

Technological resources for ICT education

Industry-grade software

Monitoring, Review & Improvement

ICT Industry Advisory Board

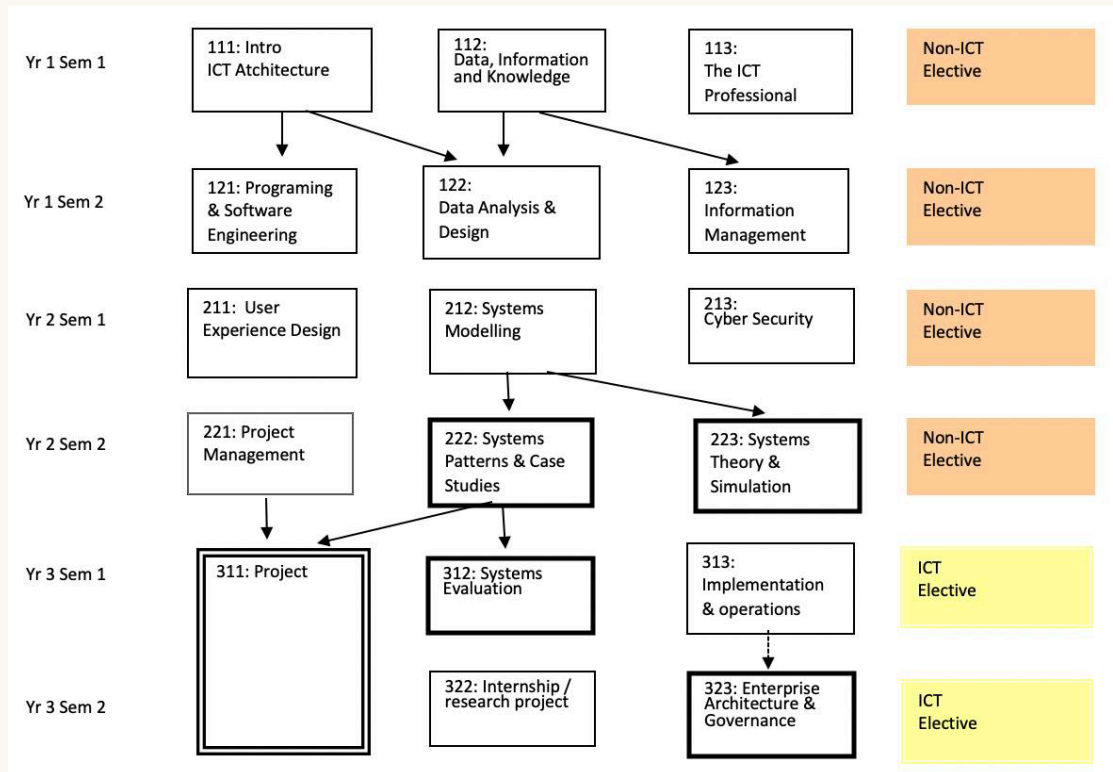
# Accreditation Application Form :

## 2.1 Program Design Criteria

Program Title - Testamur identifies program as a part of the ICT field

Program Objectives - Relevant to the ICT field

Program Structure & justification



# Accreditation Application Form :

## 2.2 Knowledge Criteria

Mandatory Subjects v ICT Knowledge Types >		ICT Knowledge: BIT (Information Systems)										In-depth		
		Professional					Core							
111: Intro to ICT Architecture						1	1	1	1	1	1		1	
112: Data Information and Knowledge						1		2					1	
113: The Digital Professional		1	1	2	2	2						2		
121: Intro to Programming & Software Engineering									2					
122: Database Design									3					1
123: Information Management Systems												1	1	
211: Systems Modelling			2							2				2
212: CyberSecurity											2			
213: Human-Computer Interaction														2
221: Systems Theory and Simulation						2				3				2
222: Systems Design Patterns and Case Studies								2						2
223: ICT Project Management		2										3		
311: Business Analysis Project (double unit)		3			3	3						3		3
312: Systems Evaluation			3											3
313: Implementation and Operations												3		
322: Internship or Research Project				3		3								3
323: Enterprise Architecture & Systems Governance												3		3
		Professional					Core					In-depth		

levels of knowledge

knowledge areas

subjects

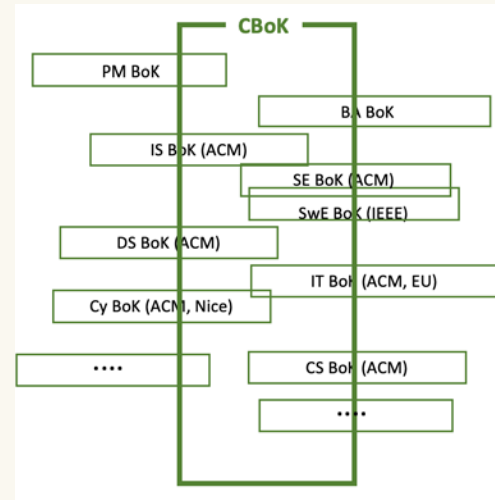
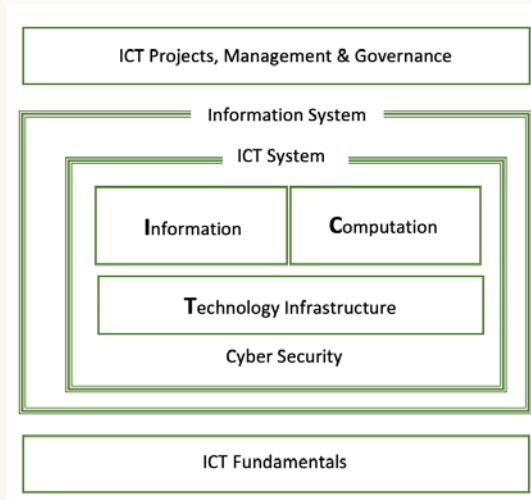
Types of knowledge

See Vol 2 for details, esp. re In-depth & the Seoul Accord

Show use of reference sources (eg. ACM curric)

# The Basis of Accreditation Knowledge Criteria : CBoK

The ACS Core Body of Knowledge (CBoK) describes the concept of the ICT Profession and an ICT Professional



## ***Application Systems***

- Analysis of human activity systems, ontological modelling, specifying organisational and external context of computing systems, impact and user experience analysis
- Integration of systems components into coherent socio-technical systems
- Types of application: organisational operations (transaction processing, executive information systems), simulation and decision support, information management (digital document (text, video, sound, image) creation, storage, communication and information retrieval), knowledge management, digital platforms and markets
- User experience: interface design, physical and cognitive ergonomics
- Application context where specifically linked to ICT: Domain attributes (e-health, e-business, transport and logistics, agriculture, e-government, etc), language and cultural factors, users work practices and organisational contexts



## 2.3 Skills for a specified ICT Professional Role

Identify a role that a graduate can perform professionally  
Demonstrate an understanding of the role (skills required, etc)  
Show how the program develops the necessary skills

[SFIA](#) (May 2023 update)

### Generic Business Analysis job descriptions

Generic job/role descriptions (referencing BABOK v3 and SFIA v8) for the following:

- Business Analysis Practice Lead
- Senior Business Analyst
- Business Analyst
- Trainee/Apprentice Business Analyst

The template describes...

- Job purpose
- Job responsibilities
- Minimum requirements for the role
- Education and qualifications
- Mapping to BABOK knowledge areas, SFIA skills and levels
- Illustrative mapping to organisational behaviours/values

## Accreditation Application Form :

### 2.4 Application of knowledge and skills

Integration of the programs components to produce coherent knowledge

Development of knowledge through the program to an advanced level

Application of the knowledge to the professional role (capstone / internship)

General preparation for Professional Practice.

# Summary : Accreditation Criteria

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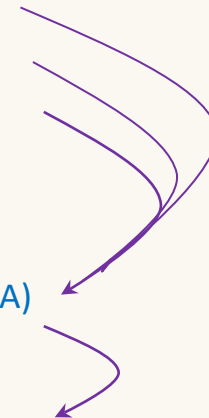
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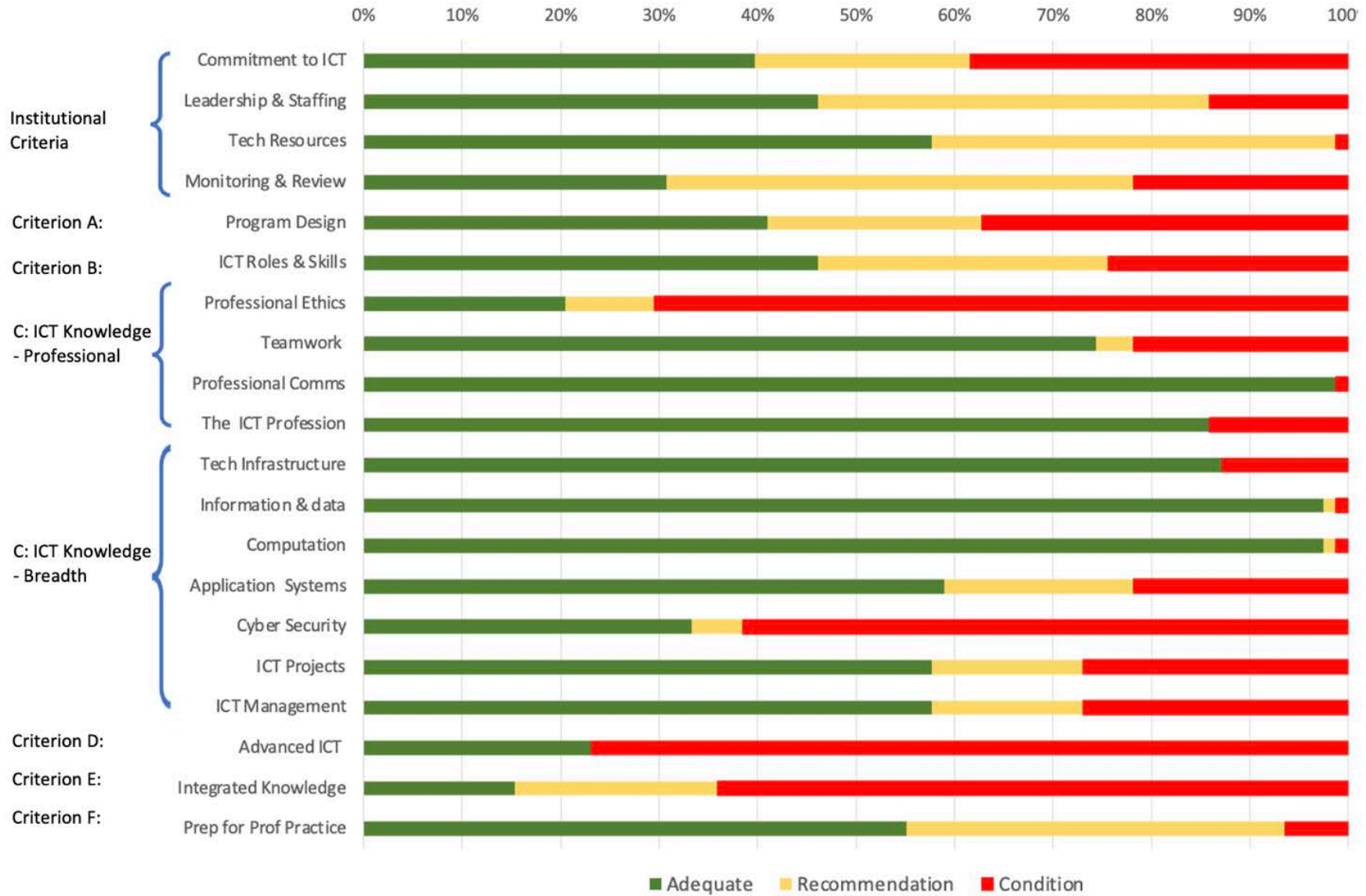
### 2.4 Application of knowledge and skills



# General Accreditation Issues 2022 year)

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2022 Accreditation Outcomes



# Specific Accreditation Issues with ICT Courses

## 1. the Institution

Lack of profile for the ICT discipline within the university

Low staff numbers

## 2. the Program

Volume of ICT - 12 ICT subjects are needed for a program to be an ICT program

Breadth - patchy coverage of the field (CBoK), professional ICT ethics, cybersecurity, project management often missing

In-depth - advanced level of knowledge needs a prereq with a prereq

Explaining the target professional role

# ACS Accreditation of ICT Programs

Suggestions for Follow up:

1. contact your ACS Case Manager for a chat  
( email: [accreditation@acs.org.au](mailto:accreditation@acs.org.au) )
2. Jenny is happy to talk with you  
(email: [jenny.edwards@acs.org.au](mailto:jenny.edwards@acs.org.au))
3. ACDICT will make this presentation available