UNIVERSITY OF
LINCOLN

MSc Intelligence Systems

With exit points at:

PGCertificate

PGDiploma

MSc

Programme Specification

18 January 2010

Marketing Summary

The Intelligence Systems MSc is a unique programme and is designed to bring together practitioners from a wide area of Intelligence Systems in a comprehensive academic programme. Student experience and prior learning in this field will be developed using comprehensive modules utilising lectures, study and practical scenarios as well as a Work Based Project, which will enhance and assist students when used alongside the University of Lincoln's extensive academic facilities.

The Intelligence Systems MSc concept has been marketed extensively and interest from the UK MoD and other international military organisations has been overwhelming. These countries include:

- UK (Including Industry, MoD – serving / ex personnel)
- Singapore
- Malaysia
- United Arab Emirates (UAE)
- Switzerland
- Germany
- Saudi Arabia
- Turkey
- India
- Kuwait
- Oman
- Qatar
- Canada

The programme is a "closed" programme in that it is only available to those applicants who are currently serving military officers or those who have recently left the armed forces but are employed in an associated relevant profession.

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Contents

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Section 1: Basic Programme Data

This document describes one of the University of Lincoln's programmes using the protocols required by the UK National Qualifications Framework as defined in the publication *QAA guidelines for preparing programme specifications.*

Final award(s)	MSc
Programme	Intelligence Systems
Other exit awards	PGCertificate
	PGDiploma
Other awards using modules from this programme	Nil
Mode of delivery	Part time
UCAS code	Nil

Awarding body	University of Lincoln
Teaching institution	Abacus EW in partnership with University of Lincoln
Owning department	Lincoln School of Computer Science
Programme leader	Mr Philip Richardson
Relevant QAA Subject Benchmark Statements	Computing
Professional, Statutory or Regulatory Body accreditation	N/A

Programme start date	20/02/2009
Introduction of the programme to be phased?	No

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Document publication date	5 Feb 2009	
Revision 1	18 Jan 2010	Revision of tables to take account of revised and new modules
Revision 2		
Revision 3		

Subsequent minor modifications to modules within this programme		
Module(s)	**Date**	**Brief description of change including any affect on other programmes**
High Frequency (HF) Electronic Support Measure (ESM)	*18/01/10*	*Proposed new module*
Complex Signals Analysis	*18/01/10*	*Proposed new module*
Managed Intelligence Databases	*18/01/10*	*Proposed new module*
Electronic Warfare Land Operations	*18/01/10*	*Proposed new module*
Counter Radio Controlled Improvised Explosive Device Electronic Warfare (CREW) Advanced Transition to Industry	*18/01/10*	*Proposed new module*
Radar Fundamentals	*18/01/10*	*Proposed title change to "Radar ESM Analysis and Techniques"*
Department Name	*18/01/10*	*Revised Department name to reflect the new Lincoln School of Computer Science*
Delivery Coordinators	*18/01/10*	*Revised existing module specifications to account for Abacus EW Consultancy staff changes*

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Section 2: Programme Aims and Objectives

2.1 Educational aims of the programme

The MSc in Intelligence Systems aims to provide practitioners with knowledge, skills and a critical understanding of Electronic Warfare within the wider Intelligence Systems environment. It will also develop a thorough technological understanding of hardware and software systems, in a range of environments and across a wide range of platforms used in this field. This will be achieved by studying and researching a range of key disciplines reflecting, researching and critically evaluating doctrine and procedures within the Intelligence Systems sphere of operations.

The programme aims to:

- Ensure graduates have a professional overview of the field as well as specialist knowledge of their particular area of expertise in Intelligence Systems whether it is technical, operational or managerial

- Provide an industry and military focus that is centred on Intelligence Systems and their applications in peace support or operational theatres around the world

- Bring together Intelligence Systems professionals with different responsibilities and from a variety of backgrounds including Defence Industries, Armed Forces and Government Defence Organisations, to work in teams on problem solving and to facilitate discussion and debate amongst practitioners

- Provide opportunities for developing a range of work-based projects that can have significant developmental implications for the organisations in which the students are employed

- Produce high calibre Masters students who have the capacity to become leaders within their field and/or proceed to further research and the development of professional practice in Intelligence Systems

2.2 QAA Subject Benchmark Statement(s)

Intelligence Systems responds to the United Kingdom QAA benchmark statement(s) for the subject of Computing.

Appendix III - Benchmarking Analysis provides a detailed specification of the relationship between this programme's curriculum and the relevant QAA benchmark(s).

2.3 Internal contexts

The Department of Computing and Informatics offers programmes in three broad areas of study. These are: computing, computer games and the creative technologies. Programmes can be taken as three year BSc (Hons) awards or four year BSc (Hons) awards that include an optional sandwich work placement. Some programmes are also available as four year MComp (Master of Computing) awards or five year MComp awards if the optional sandwich placement is also taken. The Department also hosts a strong and developing portfolio of postgraduate awards that all build upon the strengths of the international and world class research activity carried out by the staff team.

The Department is the home for research centres concerned with Vision and Robotics, Social Computing and Open Source Software. Study programmes have been structured to exploit this expertise and to ensure that wherever possible, teaching is informed by research. Opportunities for students to become familiar with and ultimately involved in research activity are actively promoted.

The Department strategy is to expand postgraduate and work-related provision, particularly for part-time students, and other study modes where attendance is problematic. This is being achieved by considering innovative approaches to delivery and working with partners to offer specialised and localised provision where appropriate.

The Department is located in the Faculty of Media, Humanities and Technology and integrates with other Faculty Schools and Departments through the provision of collaborative awards at undergraduate and postgraduate level and in research and other scholarly activity. This integration is further consolidated through the Faculty's committee structures and though Research seminar programmes.

2.4 External contexts

Intelligece Systems play a key role in all aspects of military operation around the world. These advanced systems and techniques are deployed both in times of tension and in Peace Support Operations (PSO).

Abacus EW are at the forefront of Intelligence Systems and specialise in both Communications Electronic Support Measures (CESM) & Radar Electronic Support Measures (RESM) training with ongoing specialist consultatancy in both Technical and Operational aspects of these disciplines.

State of the art Intelligence Systems Simulators are used such as:

- THREATBUILDER / VIEWS (Virtual Integrated EW Simulator) from **DRS** of Canada

- TALON Technical Signal Analysis Tool from **Ultra-Telemus** of Canada.

- Unmanned Airborne Vehicle (UAV) Simulator with an Electro Optical (EO)/Infra Red (IR) payload with future developments to include both a CESM & RESM payload .

- Narrow Band High Frequency / Very High Frequency Software Defined Receivers **WinRadio** of the UK

- Wide Band Frequency Monitoring, Intercept & Recording Capability – Including Technical Signals Analysis **MEDAV** of Germany

As well as the software and hardware simulators Abacus EW also has an extensive state of the art training facility which includes:

- Abacus EW bespoke training documentation
- Extensive Intelligence Systems scenarios and background intelligence data
- Variety of training delivery options
- Extensive library of Intelligence Systems material and internet facilities
- Multiple bespoke training classrooms with state of the art training resources

Abacus EW offers a unique service and has partnership agreements with other orginisations within the Intelligence Systems sphere of operations. These include but not limited to:

 Thales, DRS , Ultra-Telemus, ***MEDAV, MASS, BAe, Royal Navy, British Army, Royal Air Force.***

The Masters Programme in Intelligence Systems is a unique programme and will address the developments and advances in Operations and Technology within this field.

Section 3: Programme Outcomes

Programme-level learning outcomes are identified below.

Refer to *Appendix I - Curriculum Map* for details of how outcomes are deployed across the programme.

3.1 Knowledge and understanding

On successful completion of MSc Intelligence Systems a student will be able to:

A1   collate, analyse and process intelligence and information, to support making Intelligence Systems decisions in complex scenarios;

A2   critically assess the inter-relationships between Intelligence Systems components;

A3   evaluate and assess technical and operational advances in Intelligence Systems in support of Peace Support Operations;

A4   critically evaluate advances in modern Intelligence Systems;

A5   evaluate and assess different forms of intelligence from multiple sources;

A6   understand Intelligence Systems capability and the mangement of Intelligence Systems resources.

3.2 Subject specific skills and attributes

On successful completion of MSc Intelligence Systems a student will be able to:

B1   deploy assets and technology in support of Intelligence Systems for Peace Support Operations;

B2   formulate judgments and make recommendations on the application of Intelligence Systems resources;

B3   develop a detailed Intelligence Analysis Plan for use in Tactical and Strategic operations;

B4   plan, execute, manage and evaluate the deployment of Intelligence Systems assets and capabilities;

B5   make judgmnets and recommendations on Mission Analysis to support decision making processes;

B6   synthisise theories, concepts and methods in order to conduct research to support Intelligence Systems.

3.3 Transferable skills and attributes

On successful completion of MSc Inteligence Systems a student will be able to:

C1   work effectively as an independent and self-critical learner showing initiative and self motivation;

C2   work professionally as part of a team;

C3   demonstrate effective skills in resource management;

C4   use appropriate communications skills, including the ability to comprehend, summerise, synthesise and properly cite research-level materials as part of an intergrated argument;

C5   develop professional presentation techniques and utilise them to a variety of different audiences;

C6   identify material from multiple research sources relevant to a chosen topic, and from it synthisise theories, principles or designs;

C7   incorporate consideration of professional and ethical issues in decision making.

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Section 4: Learning, Teaching and Assessment Strategies

4.1 Learning and Teaching strategy

The learning and teaching strategy adopted within the MSc Intelligence Systems derives from a methodology designed to develop knowledge and understanding in this field. In particular, students experience a combination of different techniques including a "hands on" practical approach to scenarios and workshops, debates, lectures and personal research. The programme relies upon students being experienced practitioners who are military or ex military with a strong operational understanding of the Tactical and Strategic use of Electronic Warfare with a focus upon Intelligence Systems.

Students will examine and professionally evaluate operational and technical aspects of Intelligence Systems by reflection and the preparation of essays, presentations and research projects. Analytical skills are developed by critically evaluating thinking, action and structural factors operating in the area of Intelligence Systems, including underlying assumptions, and identifying implications for wider systems that extend the area of practice. The development of practical skills is progressive and is supported with mentor guidance and supporting material. Individual lecturers will have different areas of expertise and will employ a wide variety of teaching strategies enhancing the experience and providing a flexible approach to the Programme.

Each taught module consists of intensive study and practical scenario based work. The research-focused, work-based project is carried out by the student at his/her place of work supported by on-line and face-to-face tutorial support. Of the 120M level points, a student takes:

- Short modules consisting of 6 x 15 M CATS (4 optional)
- Longer modules consisting of 2 x 30 M CATS

Typically the 15 M-level CATs modules consist of a two week directed study period utilising a combination of the teaching and learning strategies outlined above. Students then undertake an equivalent period of reflection and self directed studies and assessment activities.

The 30 M-level CATs modules follow a similar model but will however typically consist of a four week directed study period normally a four week period of reflective, self-directed learning.

During the module phase students will carry out simulation activity on a variety of software and hardware applications. The uses of these tools are an integral part of the programme delivery and enhance student learning and understanding of Intelligence Systems.

The individual project, which is the final element of the Programme represents 60 M-level CATs points, and requires the student to undertake a Research Project. This is the culmination of the experiences and learning previously achieves and is the pinnacle of the programme. Students can assimilate a wide range of resources and undertake research allowing them to specialise in a particular area of interest.

New students embarking on the MSc programme will be given an induction day both at Abacus EW and the University of Lincoln. This will introduce the student to staff members

and experience the facilities and support available. Each student will have an assigned Abacus EW mentor and a University of Lincoln point of contact as well has having online access to a range of on-line support environments to facilitate file transferring, blog facilities and email. During the Research Project, which is carried out in the work place, students will have weekly contact with their designated Abacus EW Mentor and milestones will be set for presenting material and demonstrating progress with the project. Students will also be assigned a University second supervisor to extend the level of support available.

Typically a student taking the programme in part-time mode would negotiate a block of study leave where attendance on the programme occurred on an episodic basis.

Students will have access to the University of Lincolns email facility and the "Blackboard" learning system. This will provide the facility to host module information, make announcements, deliver material and provide a gateway to library and other learning resources.

4.2 Assessment strategy

The assessment strategy adopted within MSc Intelligence Systems follows the Department strategy of employing and ensuring constructive alignment. Assessments ensure coverage of module level learning outcomes and mapping of modules against Programme Level outcomes ensures that the aims of the Programme are fulfilled. Assessments take place towards the end of the study module encouraging consolidation of knowledge and skills developed during the module intensive delivery period. All study modules include coursework elements for both summative and formative assessment. Reports and assignments are used to assess knowledge and understanding, critical analysis, development of reasoned argument and synthesis of conclusions. Oral presentation skills are assessed in the context of consideration of professional issues when students present to peers the results of some group work. Practical implementation assignments assess both programming and design skills. Feedback on coursework may be provided via written comments on work submitted, by provision of 'model' answers or through discussion in tutorials.

The research project enables students to demonstrate their ability to build upon and exploit knowledge and skills gained in earlier stages of the Programme. Furthermore it provides the opportunity for students to exhibit critical and original thinking based on a period of independent study and learning. Students are encouraged to meet regularly with their supervisor throughout the project period. The research project is evaluated primarily through a report; guidance on selecting the project and writing the report is provided during the Research Methods and Project Preparation study module. As part of the development of the project proposal, students will need to consider ethical issues and will need to comply with University procedures to obtain clearance to proceed with the proposed study topic.

Appendix II - Assessment Map gives a top-level indication of the scheduling and distribution of assessment modes within the programme. Details of module assessment strategy are included with each module specification.

Section 5: Programme Structure

Intelligence Systems adopts the University's standard model for a 60/120/180 credit points, taught postgraduate programme.

Table 1 Programme structure

Stage 1 (PG Cert)	Intelligence Systems Foundation (15)	Intelligence Analysis (15)	Intermediate Intelligence Systems Management (30)	
Stage 2 (PG Dip)	Research Project Preparation (15)	Advanced Intelligence Systems Management (30)		Option Module (15)
Stage 3 (MSc)	Research Project (60)			

Table 1 Programme structure illustrates the module composition of Intelligence Systems.

For details of each module contributing to the programme, please consult the individual module specifications.

5.1 Option Modules

Students can select an option from the list of available option modules:

Intelligence Systems Fusion Management (15)	Radar ESM Analysis and Techniques (15)	Electronic Warfare Staff Officers & Information Operations (15)	UAS Payload Principles & Technology (15)
Counter Radio Controlled Improvised Explosive Device Electronic Warfare (CREW) Advanced Transition to Industry (15)	Electronic Warfare Land Operations (15)	Managed Intelligence Databases (15)	Complex Signals Analysis (15)	High Frequency (HF) Electronic Support Measure (ESM) (15)

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Section 6: Regulatory Framework

MSc Intelligence Systems is operated under the policy and regulatory frameworks of the University of Lincoln. The latest versions of all regulations and policies can be found on the Secretariat area of the Portal.

6.1 Admissions

University Regulations (University of Lincoln, current edition)
Admissions Policy (University of Lincoln, current edition)
> In addition to meeting all normal admissions requirements, all applicants are required to submit a minimum of two references. One reference should verify the miltary service record of the applicant. Where the applicant has left the armed forces, the second reference must be provided by the current employer and include a clear description of the organisational status of the employer.

Accreditation of Prior Learning Policy (University of Lincoln, current edition)
> Appendix 4 contains a guide to the level of Advanced Standing that an applicant might expect to receive based on previous experience and education. Although this gives a guide as to the likely advanced standing granted, All applicants would be required to undertake the normal University APL/APeL procedures.

6.2 Assessment

Taught Postgraduate Regulations (University of Lincoln, current edition)

6.3 Progression

Taught Postgraduate Regulations (University of Lincoln, current edition)

6.4 Placement

Placement Policy (University of Lincoln, current edition)

6.5 Study abroad

International Cooperation Policy (University of Lincoln, current edition)

6.6 Student support and guidance

Student Support and Tutoring Policy (University of Lincoln, current edition)

6.7 Off-campus delivery

Academic Partnerships Policy (University of Lincoln, current edition)

6.8 Ethical Issues

Ethical Guidelines (University of Lincoln, current edition)

6.9 Equal Opportunities

Equality and Diversity Policy (University of Lincoln, current edition)

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Appendix I - Curriculum Map

This table indicates which modules assume responsibility for delivering (shaded) and assessing (✓) particular programme learning outcomes.

Stage	Module	A1	A2	A3	A4	A5	A6		B1	B2	B3	B4	B5	B6		C1	C2	C3	C4	C5	C6	C7
Certificate	Intelligence Systems Foundation	✓	✓			▓				✓	✓					✓	▓	▓		✓		
	Intelligence Analysis	✓			✓						✓		✓			✓		✓	✓	✓	▓	
	Intermediate Intelligence Systems Management		▓	✓			✓		✓	✓		✓		▓		✓	✓	▓	▓	✓	✓	▓

Stage	Module	A1	A2	A3	A4	A5	A6		B1	B2	B3	B4	B5	B6		C1	C2	C3	C4	C5	C6	C7
Diploma	Research Project Preperation		✓		✓							✓	✓			✓	▓		✓			
	Advanced Intelligence Systems Management	✓	▓	✓	▓		▓		▓	✓		✓	▓	✓		▓	✓		▓	✓	▓	✓
	Radar ESM Analysis and Techniques	▓	✓		✓		▓			✓						✓	▓		✓	▓	✓	
	Electronic Warfare Staff Officers & Information Operations	✓	✓	▓	✓	✓				▓		✓		✓		✓			✓	▓		✓
	Intelligence Systems Fusion Manegement	✓	▓		✓	✓			✓	✓		▓				✓			✓	✓	▓	
	UAS Payload Principles & Technology	✓	✓	▓			▓			✓				✓		✓			✓	▓	▓	▓
	High Frequency (HF) Electronic Support Measure (ESM)	✓			▓	✓			▓	✓	✓					✓			✓			
	Complex Signals Analysis	✓			✓	✓	▓			✓	✓					✓			✓			
	Managed Intelligence Databases		✓	▓	✓	✓				▓		✓	▓	✓		✓			▓		✓	
	Electronic Warfare Land Operations		✓	✓	▓	▓				✓	▓	✓				✓			✓			
	CREW Advanced Transition to Industry		▓		✓	✓	▓			✓		▓	✓	✓		✓		▓	✓	▓	✓	▓

Stage	Module	A1	A2	A3	A4	A5	A6		B1	B2	B3	B4	B5	B6		C1	C2	C3	C4	C5	C6	C7
Masters	Research Project		▓		✓		▓			▓			✓	✓		✓		✓	▓	✓	✓	✓

Appendix II - Assessment Map

This table indicates the modality of module assessment within **Intelligence Systems**. Percentages indicate assessment weighting. Shading indicates examination (as opposed to in-course assessment). Italics indicate assessments that may be distributed across previous weeks.

Stage	Module	Week 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PGCert	Intelligence Systems Foundation			25%	75%												
	Intelligence Analysis							25%	75%								
	Intermediate Intelligence Systems Management											25%				*50%*	25%
PGDip	Research Project Preperation				100%												
	Advanced Intelligence Systems Management							25%				*50%*	25%				
	Radar ESM Analysis and Techniques															25%	75%
	Electronic Warfare Staff Officers & Information Operations															25%	75%
	Intelligence Systems Fusion Manegement															25%	75%
	UAS Payload Principles & Technology															25%	75%
	High Frequency (HF) Electronic Support Measure (ESM)														40%	30%	*30%*
	Complex Signals Analysis															50%	*50%*
	Managed Intelligence Databases															50%	*50%*
	Electronic Warfare Land Operations																*100%*
	CREW Advanced Transition to Industry															25%	75%
MSc	Research Project																*100%*

Appendix III - Benchmarking Analysis

This table summarises the key features of MComp Computer Science, with the particular aim of demonstrating the mapping between programme learning outcomes and the QAA benchmark statement for the subject of Computing.

	1	2	3	4	5	6
A 1	√	√	√			√
A 2	√	√	√			
A 3	√	√		√		√
A 4	√	√	√		√	√
A 5	√	√	√	√		√
A 6	√	√	√			√

	1	2	3	4	5	6
B 1		√	√	√		√
B 2	√	√	√		√	√
B 3	√	√	√	√		√
B 4	√	√			√	√
B 5		√	√		√	
B 6	√	√	√			√
C 1		√		√		
C 2			√			
C 3		√	√	√		
C 4		√	√	√	√	
C 5	√			√	√	
C 6	√	√	√	√	√	
C 7	√					√

QAA Subject Benchmarks for Computing related subjects

1. demonstrate a sound understanding of the main areas of the body of knowledge within their programme of study, with an ability to exercise critical judgement across a range of issues;
2. critically analyse and apply a range of concepts, principles and practice of the subject in an appropriate manner in the context of loosely defined scenarios, showing effective judgement in the selection and use of tools and techniques;
3. produce work involving problem identification, the analysis, the design or the development of a system, with accompanying documentation, recognising the important relationships between these. The work will show problem-solving and evaluation skills, draw upon supporting evidence and demonstrate a good understanding of the need for quality;
4. demonstrate transferable skills with an ability to show organised work as an individual and as a team member and with minimum guidance;
5. apply appropriate practices within a professional, legal and ethical framework and identify mechanisms for continuing professional development and lifelong learning;
6. explain a wide range of applications based upon the body of knowledge.

These are the QAA Subject Benchmark statements for Undergraduate *modal* performance. As there are no statements for Masters Level, these statements have been interpreted as being the *threshold* Performance for an M-Level student.

Appendix IV – Accreditation by Prior Learning APL / APeL

ARMY ROYAL SIGNALS – YEOMAN OF SIGNALS EW

Course Codes		Course Codes	
1	Defence Intelligence Security Centre Basic Communications Exploitation Course	8	Defence Intelligence Security Centre Practical Signals Collection Course
2	Communication & Security Group Special Operator Training	9	Defence Intelligence Security Centre Computer Aided Search Techniques
3	Defence Intelligence Security Centre Intelligence Analyst Course	10	Defence Intelligence Security Centre Supervisor Radio Course
4	Defence Intelligence Security Centre Analysis and Reporting Course	11	Royal School of Signals Yeoman of Signals (EW) Course
5	Defence Intelligence Security Centre Advanced Collection Exploitation Course	12	OGD - Introduction to Weapons Systems Collection Course
6	Royal Signals Special Operator Class 1 Upgrading	13	OGD - Radar Theory of Operation Course
7	Defence Intelligence Security Centre HF Collection Course	14	OGD - Advanced Radar Theory of Operation Course

Note: This list of courses is not exhaustive. It aims to represent the majority of generic career training courses and pre-employment training undertaken by this particular trade group

All UK Service Ranks have been taken from the NATO Rank codes.

Warrant Officer Class 1 or above includes Captain, Major and Lieutenant Colonel.

| Service | Rank | Service Criteria | APL Accreditation | | | | | | | | | Total M Level CAT Points Accredited |
| | | | PG Cert Level 1 | | | PG Dip Level 2 | | | | | | |
			Intelligence Systems (EW) Foundation	Intelligence Analysis	Intermediate Intelligence Systems (EW) Management	Mandatory Module -Research Methods and Project Preparation	Mandatory Module – Advanced Intelligence Systems (EW) Management	Option Module -Radar Fundamentals	Option Module -Staff Officers Electronic Warfare & Information Operations	Option Module - Intelligence Systems (EW) Fusion Management	Option Module - Unmanned Aerial Systems (UAS)	
Army Royal Signals Yeoman of Signals Electronic Warfare	Warrant Officer Class 1 (YofS (EW)) or Above	Typically 18-22 years Service with 2 years Substantive in Rank WO1	15	15	30	15	30	15	-	-		105
		Matched Career Courses	1 or 2	3,4	5 or 6 or 7,8,9	-	10 or 11	12,13 or 14	-	-	-	-
	Warrant Officer Class 2 (YofS (EW))	Typically 15-18 years Service with 2 years Substantive in Rank WO2	15	15	30	15	30	-	-	-	-	90
		Matched Career Courses	1 or 2	3,4	5 or 6 or7,8,9	-	10 or 11	-	-	-	-	
	Staff Sergeant (YofS (EW))	Typically 12 - 15 years Service with 2 years substantive in Rank SSgt	15	15	30	15	30	-	-	-	-	90
		Matched Career Courses	1 or 2	3,4	5 or 6 or7,8,9	-	10 or 11	-	-	-	-	-

ROYAL NAVY – EW BRANCH

Course Codes	
1	HMS Collingwood - Electronic Warfare Specialised Training
2	HMS Collingwood - Command Support Systems (CSS) Course
3	HMS Collingwood - Operational Intelligence (OPINTEL) Course
4	HMS Collingwood - Leading Hand (EW) Qualifying Course
5	HMS Collingwood - Petty Officer (EW) Qualifying Course
6	HMS Collingwood - Advanced Radar Principles and Theory
7	HMS Collingwood - Intelligence Sources within the RN and Joint Service Environment

Note: This list of courses is not exhaustive. It aims to represent the majority of generic career training courses and pre-employment training undertaken by this particular trade group

All UK Service Ranks have been taken from the NATO Rank codes.

Warrant Officer Class 1 or above includes Lieutenant, Lieutenant Commander and Commander.

Service	Rank	Service Criteria	APL Accreditation									Total M Level CAT Points Accredited
			PG Cert Level 1			PG Dip Level 2						
			Intelligence Systems (EW) Foundation	Intelligence Analysis	Intermediate Intelligence Systems (EW) Management	Mandatory Module -Research Methods and Project Preparation	Mandatory Module – Advanced Intelligence Systems (EW) Management	Option Module -Radar Fundamentals	Option Module -Staff Officers Electronic Warfare & Information Operations	Option Module - Intelligence Systems (EW) Fusion Management	Option Module - Unmanned Ariel Systems (UAS)	
Royal Navy Electronic Warfare Branch	Warrant Officer Class 1 or Above	Typically 18-37 years Service with 2 years Substantive in Rank WO1	15	15	30	15	30	-	-	15	-	105
		Matched Career Courses	1, 2	3	4	-	5	6	-	7	-	-
	Chief Petty Officer	Typically 12-18 years Service with 2 years Substantive in Rank CPO	15	15	30	15	30	-	-	-	-	90
		Matched Career Courses	1,2	3	4	-	5	6	-	7	-	-

ROYAL NAVY – COMMUNICATIONS TECHNICIAN WARFARE BRANCH

Course Codes		Course Codes	
1	HMS Collingwood - Communications Technician Training	8	Royal Navy CT Petty Officer Qualifying Course
2	Defence Intelligence Security Centre Basic Communications Exploitation Course	9	Royal Navy CT Warrant Officer Qualifying Course
3	Defence Intelligence Security Centre Intelligence Analyst Course	10	OGD - Introduction to Weapons Systems Collection Course
4	Defence Intelligence Security Centre Advanced Collection Exploitation Course	11	OGD - Radar Theory of Operation Course
5	Defence Intelligence Security Centre HF Collection Course	12	OGD - Advanced Radar Theory of Operation Course
6	Defence Intelligence Security Centre Practical Signals Collection Course	13	Defence Intelligence Security Centre SIGINT Managers Course
7	Defence Intelligence Security Centre Computer Aided Search Techniques	14	Defence Intelligence Security Centre Intelligence Preparation Course (IPC)

Note: This list of courses is not exhaustive. It aims to represent the majority of generic career training courses and pre-employment training undertaken by this particular trade group

All UK Service Ranks have been taken from the NATO Rank codes.

Warrant Officer Class 1 or above includes Lieutenant, Lieutenant Commander and Commander.

Service	Rank	Service Criteria	APL Accreditation									Total M Level CAT Points Accredited
			PG Cert Level 1			PG Dip Level 2						
			Intelligence Systems (EW) Foundation	Intelligence Analysis	Intermediate Intelligence Systems (EW) Management	Mandatory Module -Research Methods and Project Preparation	Mandatory Module – Advanced Intelligence Systems (EW) Management	Option Module -Radar Fundamentals	Option Module -Staff Officers Electronic Warfare & Information Operations	Option Module - Intelligence Systems (EW) Fusion Management	Option Module - Unmanned Ariel Systems (UAS)	
Royal Navy Communications Technician Warfare Branch	Warrant Officer Class 1 or Above	Typically 16 - 24 years Service with 2 years Substantive in Rank WO1	15	15	30	15	30	-	-	15	-	105
		Matched Career Courses	1,2,	3,4	5,6 or 7	-	8,9	10,11 or 12	-	13,14	-	-
	Warrant Officer Class 2	Typically 12 - 16 years Service with 2 years Substantive in Rank WO2	15	15	30	15	30	-	-	-	-	90
		Matched Career Courses	1,2	3,4	5,6 or 7	-	6	-	-	-	-	-
	Chief Petty Officer	Typically 8 - 12 years Service with 2 years Substantive in Rank CPO	15	15	30	15	30	-	-	-	-	90
		Matched Career Courses	1,2	3,4	5,6 or 7	-	6	-	-	-	-	-

ROYAL AIRFORCE – INTELLIGENCE ANALYST

Course Codes		Course Codes	
1	North Luffenham Special Telegraphist Training	9	Defence Intelligence Security Centre Advanced Collection Exploitation
2	North Luffenham - Radio Operator Telegraphist Course	10	Defence Intelligence Security Centre Computer Aided Search Techniques
3	Defence Intelligence Security Centre Basic Communications Exploitation Course	11	OGD - Introduction to Weapons Systems Collection Course
4	Operational Air Intelligence Course	12	OGD - Radar Theory of Operation Course
5	North Luffenham - Further Technical Training 1 Course	13	OGD - Advanced Radar Theory of Operation Course
6	North Luffenham - Further Technical Training 2 Course	14	Defence Intelligence Security Centre SIGINT Managers Course
7	Defence Intelligence Security Centre HF Collection Course	15	Defence Intelligence Security Centre Intelligence Preparation Course (IPC)
8	Defence Intelligence Security Centre Practical Signals Collection Course	16	Defence Intelligence Security Centre SIGINT Operational Officers

Note: This list of courses is not exhaustive. It aims to represent the majority of generic career training courses and pre-employment training undertaken by this particular trade group

All UK Service Ranks have been taken from the NATO Rank codes.

Warrant Officer / Master Aircrew or above includes Flight Lieutenant, Squadron Leader and Wing Commander

Service	Rank	Service Criteria	PG Cert Level 1			PG Dip Level 2						Total M Level CAT Points Accredited
			APL Accreditation									
			Intelligence Systems (EW) Foundation	Intelligence Analysis	Intermediate Intelligence Systems (EW) Management	**Mandatory Module** -Research Methods and Project Preparation	**Mandatory Module** – Advanced Intelligence Systems (EW) Management	**Option Module** -Radar Fundamentals	**Option Module** -Staff Officers Electronic Warfare & Information Operations	**Option Module** - Intelligence Systems (EW) Fusion Management	**Option Module** - Unmanned Ariel Systems (UAS)	
Royal Air Force Intelligence Analyst	Warrant Officer or Above	Typically 30 - 37 years Service with 2 years Substantive in Rank WO	15	15	30	15	30	-	-	15	-	105
		Matched Career Courses	1 or 2 or 3	4 or 5,6	7,8,10 or 9	-	14,15	11, 12 or 13	16		-	
	Flight Sergeant	Typically 22 - 30 years Service with 2 years Substantive in Rank FS	15	15	30	15	30	-	-	-	-	90
		Matched Career Courses	1 or 2 or 3	4 or 5,6	7,8,10 or 9	-	-	-	-	-	-	