



Candidate Handbook

Marine Technologist CMarTech | RMarTech | MarTech

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Introduction

IMarEST is The Institute of Marine Engineering, Science and Technology; the international professional body and learned society for all marine professionals. IMarEST is the first Institute to bring together marine engineers, scientists and technologists into one international multi-disciplinary professional body.

IMarEST is the largest marine organization of its kind with a worldwide membership based in over 120 countries, it is a registered charity and provides grades of membership for everyone, from those seeking to become Chartered or gain other Professional Recognition, to those just starting out in their careers or studying in education.

The Society for Underwater Technology (SUT) is a multidisciplinary learned society that brings together organisations and individuals with a common interest in underwater technology, ocean science and offshore engineering. SUT was founded in 1966 and has members from more than 40 countries, including engineers, scientists, other professionals and students working in these areas.

The Marine Technology Society (MTS) promotes awareness, understanding, and the advancement and application of **marine technology.** Incorporated in 1963, the international society brings together businesses, institutions, professionals, academics, and students who are ocean engineers, technologists, policy makers, and educators.

Our mission is to facilitate a broader understanding of the relevance of marine technology to wider global issues by enhancing the dissemination of marine technology information; promote and improve marine technology and related educational programs; and advance the development of the tools and procedures required to explore, study and further the responsible and sustainable use of the oceans.

To that end, the Marine Technology Society, and the Society for Underwater Technology (SUT), through a partnership with the Institute of Marine Engineering, Science & Technology (IMarEST), offer marine technology professionals the opportunity to seek the title of Chartered Marine Technologist (CMarTech), Registered Marine Technologist (RMarTech), or MarTech (Marine Technologist).

Choosing the Appropriate Registry Category

	If you have earned	You may qualify for	
Marine Scientist*	<u>Master's</u> Degree or Equivalent	CMarSci	
	<u>Bachelor's</u> Degree or Equivalent	RMarSci	
	Foundation Degree, Higher National Qualification, <u>Associate's</u> , or Vocational Degree; or Equivalent	MarTech	
Marine Technologist	<u>Master's</u> Degree or Equivalent	CMarTech	
or Technician	<u>Bachelor's</u> Degree or Equivalent	RMarTech	
	Foundation Degree, Higher National Qualification, <u>Associate's</u> , or Vocational Degree; or Equivalent	MarTech	

*The Marine Scientist Registry will not be offered at SUT and MTS until October 2021. Please check the website for more information on the application opening date.

Chartered Marine Technologist

Chartered Marine Technologist (CMarTech)

Chartered Marine Technologists are professionals, who harness, exploit, manage, use or apply marine technology in the pursuit of wealth creation and/or the provision of services in the marine sector. Chartered Marine Technologists are characterized by their ability to deal with complex issues, both systematically and creatively and can make sound judgements in the absence of complete data to develop solutions to problems and communicate their conclusions clearly to specialist and non-specialist audiences.

Chartered Marine Technologists continue to advance their knowledge, understanding and competence to a high level and are bound by the codes of conduct of SUT and MTS.

Typically, Chartered Marine Technologists will be professionals from disciplines such as: Fleet Managers, Hydrographers, Marine Superintendents (Deck), Meteorologists, Pilots, Marine Logisticians, Deck Officers and Ratings, Marine Surveyors, Shipping Professionals, Harbormasters, University faculty, Navigators, Radar/Sonar Maintenance Experts, Warfare Officers and Ratings and Naval Officers and Ratings, Instrumentation and Platform Designers and Developers.

Applicants seeking professional registration as a Chartered Marine Technologist will need to demonstrate through their professional education/training and experience in roles directly related to the use or management of marine technology that they are eligible for Chartered Marine Technologist Registration.

Benefits of CMarTech Registration

The Chartered Marine Technologist designation has many benefits for individuals, employers and the public as a whole. CMarTech ensures high and improving standards across all technological disciplines; it reflects best practice and is set at an internationally recognised benchmark level. CMarTech encompasses high caliber professionals in the practice, research, application and teaching of technology, and recognizes the increasing focus on trans-disciplinarity for the future of science, engineering and technology. Furthermore, CMarTech registration provides employers with additional assurance of the quality of their workforce. It is of benefit to:

Society, which will be more confident in the competence of an individual and need no longer be confused by a platform of letters and descriptions.

Individual practitioners, by identification as a professional that sets them at the forefront of their profession and offers a passport to job mobility.

Employers, with confirmation, through the designation, of the quality of a job applicant's qualifications.

Government offices, seeking to hire or appoint permanent staff, advisers, or consultants would have an assurance about the level of an individual's expertise.

Professional societies and organizations, by providing - through the new designation - additional opportunities to benchmark their qualifications.

Higher education, which will be better able to set and monitor benchmarks for their technology courses, and to promote programs of study to meet the high standards required of a Chartered Marine Technologist.

Regulatory Authorities, who could be confident in specifying the designation in legislation and regulations.

Legal credibility, enabling expert witness participation at a defined standard.

Professional standing, recognizing equality of excellence across the technology professions.

Required Level of Knowledge & Competence

Chartered Marine Technologist is open to everyone, who can demonstrate the required high-level knowledge, understanding and professional competence. There are many routes that can be measured to meet this standard, including a combination of academic awards, vocational qualifications and experiential learning through work. Competence includes the knowledge, understanding, and skills that underpin performance.

Chartered Marine Technologists are required to maintain their professional competence, working within professional codes of conduct, and participate actively within their profession. There is also a requirement for continuing professional development.

Assessment of Knowledge & Competence

To become registered as a Chartered Marine Technologist, applicants must have their competence assessed by the Society as being suitable for CMarTech.

The process of assessment starts with a written application. Claims to qualifications, experience, and training will require formal documented evidence. In giving details of experience, applicants will need to show how this relates to the required competencies for CMarTech.

Following a review of the documented evidence, the applicant will be required to undertake a professional review interview (PRI). The Society will inform the candidate of the necessary procedures. If deficiencies in the application emerge, the Registrar will usually be able to suggest ways in which they can be addressed (this may involve further learning, training, or additional experience). Following the PRI, the application will be forwarded to the Registry Panel for a final disposition. If a candidate receives a positive decision on their application for CMarTech, they will become registered as a Chartered Marine Technologist and their details will be included on the Society's Register of Chartered Marine Technologists. If the Candidate's application is not approved by the Registry Panel, the Candidate may be granted a second interview, may be asked to resubmit under a different registry category, or may be asked to mitigate application deficiencies prior to re-application. Retention of the designation will require continued membership in the Society, completion of professional development requirements, and payment of the required annual dues and credential subscription. Candidates may elect to purchase membership in either or both Societies, according to their preference.

Additional information on assessment of knowledge and competence is available in the competency table.

Assessment Standards: CMarTech

Education

Normally, a formal education is an essential pre-requisite for registration as it demonstrates the underpinning knowledge and understanding for professional competence. The following qualifications exemplify the required knowledge and understanding for Chartered Marine Technologist Registration:

An accredited Master's degree

or

An accredited Bachelor's degree, plus either an appropriate accredited Master's degree, or appropriate further learning to Masters level.

If an accredited Master's level qualification is not presented, it is possible to demonstrate Masters level achievement through a combination of academic awards and/or appropriate experiential learning. Candidates applying through this route must clearly demonstrate that they have achieved the same level of knowledge and understanding, as those with the accredited qualifications. For example, a Bachelor's qualification supported by appropriate professional experience may be sufficient to demonstrate a Masters level knowledge. Candidates must respond to each of the Competency Standards with specific examples of how they have met each standard through experiential learning. Candidates should be careful to explain what was learned from each experience.

Competence

All Candidates for registry must have at minimum of five (5) years of experience in their professional field. The following table details the generic competencies that must be demonstrated in order to achieve registration as a Chartered Marine Technologist. Given the diverse nature of technological practice, achieving the required level for these professional competencies will involve a broad range of activities. Candidates who believe they meet these or who wish to work towards them, should approach the SUT or MTS to obtain further details on how to apply for registration. Chartered Marine Technologists must be competent throughout their professional lives using a combination of their knowledge, training and experience to be able to:

The Competence and Commitment Standard for Chartered Marine Technologists.	Guidance – These are examples of activities which could demonstrate that you have achieved the CMarTech criteria.
Chartered Marine Technologists must be competent throughout their working life, by virtue of their education, training and experience, to:	
A. Use a combination of general and specialist knowledge and understanding to optimize the application of existing and emerging technology.	
A1. Maintain and extend a sound theoretical approach in enabling the introduction and exploitation of new and advancing technology and other relevant developments.	Engage in formal post-graduate academic study. Learn and develop new relevant theories and techniques in the workplace. Broaden your knowledge of appropriate codes,
This could include an ability to:	standards and specifications.
 Identify the limits of own personal knowledge and skills Strive to extend own technological capability Broaden and deepen own knowledge base through research and experimentation. 	
A2. Engage in the creative and innovative development of systems, processes and products and continuous improvement systems.	Lead/manage market research, and product and process research and development. Cross-disciplinary working involving complex projects.
This could include an ability to:	
 Establish users' needs Assess marketing needs and contribute to marketing strategies Identify constraints and exploit opportunities for the development and transfer of technology within own chosen field Define and promote new applications when appropriate Secure the necessary intellectual property rights Develop and evaluate continuous improvement systems. 	Conduct statistically sound appraisal of data. Use evidence from best practice to improve effectiveness.
B. Apply appropriate theoretical and practical methods to the analysis and solution of problems.	

B1. Identify potential projects and opportunities.	Involvement in the marketing of and tendering for new
This could include an ability to:	products, processes and systems.
 Explore the territory within own responsibility for new opportunities Review the potential for enhancing products, processes, systems, and services. Use own knowledge of the employer's position to assess the viability of opportunities. 	Involvement in the specification and procurement of new products, processes and systems. Set targets, and draft programs and action plans. Schedule activities.
B2. Conduct appropriate research and undertake design and development of solutions.	Carry out formal theoretical research. Carry out basic and/or applied research on the job. Lead/manage value and whole
This could include an ability to:	life costing. Lead design teams. Draft specifications. Develop
 Identify and agree appropriate research methodologies Assemble the necessary resources Carry out the necessary tests Collect, analyze and evaluate the relevant data Draft, present and agree design results and recommendations, taking account of cost, quality, safety, reliability, appearance, fitness for purpose and environmental impact Undertake design. 	and test options. Identify resources and costs of options. Produce concept designs and develop these into detailed designs.
B3. Implement design solutions and evaluate their	Follow the design process through into product or service
effectiveness.	realization and its evaluation. Prepare and present reports on the evaluation of the effectiveness of the designs. Manage
This could include an ability to:	product improvement. Interpret and analyze performance.
 Ensure that the application of the design results in the appropriate practical outcome Implement design solutions, taking account of critical constraints Determine the criteria for evaluating the design solutions Evaluate the outcome against the original specification Actively learn from feedback on results to improve future design solutions and build best practice. 	Determine critical success factors.
C. Provide technical and commercial leadership.	
 C1. Plan for effective project implementation. This could include an ability to: Identify the factors affecting the project implementation Lead on preparing and agreeing implementation plans and method statements Ensure that the necessary resources are secured and brief the project team Negotiate the necessary contractual arrangements with other stakeholders (client, subcontractors, suppliers, etc.). 	Lead/manage project planning activities. Produce and implement procurement plans. Carry out project risk assessments. Collaborate with key stakeholders and negotiate agreement to the plans. Plan programs and delivery of tasks. Identify resources and costs. Negotiate and agree contracts/work orders.

 C2. Plan, budget, organize, direct and control tasks, people and resources. This could include an ability to: Set up appropriate management systems Agree on quality standards, program and budget within legal and statutory requirements Organize and lead work teams, coordinating project activities Ensure that variations from quality standards, program and budgets are identified, and that corrective action is taken Gather and evaluate feedback and recommend improvements. 	Take responsibility for and control project operations. Manage the balance between quality, cost and time. Manage contingency systems. Manage project funding, payments and recovery. Satisfy legal and statutory obligations. Lead/manage tasks within identified financial, commercial and regulatory constraints.
 C3. Lead teams and develop staff to meet changing technical and managerial needs. This could include an ability to: Agree objectives and work plans with teams and individuals Identify team and individual needs, and plan for their development Lead and support team and individual development Assess team and individual performance and provide feedback. 	Carry out/contribute to staff appraisals. Plan/contribute to the training and development of staff. Gather evidence from colleagues of the management, assessment and feedback that you have provided. Carry out/contribute to disciplinary procedures.
C4. Bring about continuous improvement through quality management. This could include an ability to:	Plan and implement best practice methods of continuous improvement, e.g. ISO 9000, EFQM, balanced scorecard. Carry out quality audits.
 Promote quality throughout the organization and its customer and supplier networks Develop and maintain operations to meet quality standards Direct project evaluation and propose recommendations for improvement. 	Monitor, maintain and improve delivery. Identify, implement and evaluate changes to meet quality objectives.
D. Demonstrate effective interpersonal skills.	
 D1. Communicate in English with others at all levels. This could include an ability to: Contribute to, chair and record meetings and discussions Prepare letters, documents and reports on complex matters Exchange information and provide advice to technical and non-technical colleagues. 	Reports, minutes of meetings, letters, programs, drawings, specifications.

D2. Present and discuss proposals.	Presentations, records of discussions and their outcomes.
This could include an ability to:	
 Prepare and deliver presentations on strategic matters Lead and sustain debates with audiences Feed the results back to improve the proposals. 	
D3. Demonstrate personal and social skills.	Records of meetings. Evidence from colleagues of your
This could include an ability to:	personal and social skills.
 Know and manage own emotions, strengths and weaknesses Be aware of the needs and concerns of others Be confident and flexible in dealing with new and changing interpersonal situations Identify, agree and lead work towards collective goals Create, maintain and enhance productive working relationships, and resolve conflicts. 	Take responsibility for productive working relationships. Apply diversity and antidiscrimination legislation.
E. Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment.	
E1. Comply with relevant codes of conduct.	Work with a variety of conditions of contract. Demonstrate
This could include an ability to:	initiative in and commitment to the affairs of SUT and/or MTS.
 Comply with the rules of professional conduct of SUT and/or MTS Lead work within all relevant legislation and regulatory frameworks, including social and employment legislation. 	
E2. Manage and apply safe systems of work.	Undertake formal health and safety (H&S) training. Work with
This could include an ability to:	H&S legislation and best practice and company safety policies. Carry out safety audits. Identify and minimise hazards.
 Identify and take responsibility for own obligations for health, safety and welfare issues Ensure that systems satisfy health, safety and welfare requirements Develop and implement appropriate hazard identification and risk management systems 	Evaluate the costs and benefits of safe working. Deliver strategic H&S briefings and inductions.
 Manage, evaluate and improve these systems. 	
E3. Undertake activities in a way that contributes to sustainable development.	Carry out environmental impact assessments.
This could include an ability to:	Carry out environmental risk assessments.
 Operate and act responsibly, taking account of the need to progress environmental, social and economic outcomes simultaneously Use imagination, creativity and innovation to provide products and services which maintain and enhance the quality of the environment and community, and meet financial objectives 	Plan and implement best practice environmental management systems, e.g. ISO 14000. Work within environmental legislation.

	Achieve "triple bottom line" (i.e. social, economic and environmental) outcomes.
E4. Carry out continuing professional development (CPD)	Keep up to date with relevant national and international
necessary to maintain and enhance competence in own area	issues. Maintain CPD plans and records. Involvement with the
of practice.	affairs of SUT and/or MTS. Evidence of your
This could include an ability to:	development through on-the-job learning, private study, in-house courses, external courses and conferences.
Undertake reviews of own development needs	,
Prepare action plans to meet personal and	
organizational objectives	
Carry out planned (and unplanned) CPD activities	
Maintain evidence of competence development	
Evaluate CPD outcomes against the action plans	
 Assist others with their own CPD. 	

Professional Development

Professional development is a key part of developing the competence required to achieve the standard for Chartered Marine Technologist registration. Aspiring Chartered Marine Technologists learn to apply their knowledge and understanding and apply professional judgement through professional development. Candidates may rely on professional development opportunities offered via SUT or MTS events, university training, workplace training, accredited professional development schemes, or other high-level professional development opportunities. For candidates seeking additional information about professional development, the Registrar will be able to provide information and guidance necessary and may be able to put them in touch with a mentor to assist them through the process and help to identify any skills gaps in their development.

Anyone seeking registration as a Chartered Marine Technologist should maintain a detailed record of their development, responsibilities and experience, verified by referees, in order to be best prepared to provide the evidence of professional competence commensurate for CMarTech registration.

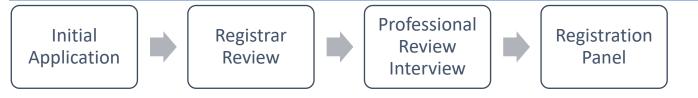
Maintaining Competence & Demonstrating a Commitment to CPD

Once CMarTech registration has been achieved, Chartered Marine Technologists have an obligation to maintain professional competence. SUT and MTS are actively developing an online tracking system for professional development units, which will be made available to those registered if the pilot program is continued.

Code of Professional Conduct

All successful candidates are required to make a personal commitment to live by the appropriate codes of professional conduct, recognizing their obligations to society, the marine professions and the environment. The SUT code of conduct is available online here: https://www.sut.org/about-the-sut/society-for-underwater-technology-ethical-standards-for-members-and-branches/. The MTS code of conduct is available online here: http://www.mtsociety.org/wp-content/uploads/2019/01/3200-Member-Conduct-Policy-2012.pdf.

The Application Process



Initial Application

Please review the competency standards in advance of your application. If you think you meet the criteria for CMarTech registration, submit the **Initial Application Form** included in this Handbook. Your application will consist of:

- Completed **online** application
- Referee Form (PDF)
- Professional Development Report (PDF) refer to guidance below
- Your CV
- Photocopies of your academic certificates initialed by your referee
- Registration fee (see the worksheet in the application below)

Once you have submitted your application, your materials will be forwarded to the Registrar. The Registrar will review your submission and will render a decision within seven (7) business days, either to forward your materials to the Interview Phase, or to reject your application. Unsuccessful applicants will receive feedback from the Registrar indicating the areas in need of improvement for future application on the *Professional Development Recommendation Form*, as well as information about the appeals and reapplication process. We strongly encourage unsuccessful applicants to review the *Professional Development Recommendation Form* to determine which areas of the application need improvement prior to reapplication. <u>Reapplication is encouraged</u>.

The Interview

Applicants meeting the minimum standards for the Initial Application Process, and who are deemed likely to succeed in the Interview Phase will be forwarded to the Professional Review Interview (PRI). The Registrar will review the application and select appropriate interviewers for the specific applicant based on experience and knowledge of the applicant's specific domain of work in marine technology. The Registrar will identify at least three (3) available dates and times for a proposed interview of the applicant and will schedule the interview with the applicant according to his/her preference of proposed interview dates/times. Scheduling of the interview may occur digitally. Interviews must take place within six (6) months of initial application. Exceptions may be made based on circumstances; requests for extensions must be made in writing. Extensions are not guaranteed.

The Interview is a critical step is assessing the full range of mastery of each applicant. Interviews are conducted by no fewer than 2 panelists, at least one with broad marine technology knowledge, and at least one with knowledge specific to the applicant's domain of work. The applicant will be questioned on his/her academic experiences, professional development accomplishments, and continuing professional development plans. Questions will align closely with the domains of competency outlined above.

Assessors will make note of the strengths and weaknesses of the applicant and will record recommendations on the *Professional Development Recommendation Form*. Within seven (7) days of the interview, panelists will forward their recommendation to the Registry Panel, which will make the final decision on disposition of applications. Applicants will be notified in writing of the determination of the Registry Panel following their decision. Possible outcomes include:

- Application approved
- Application not approved
 - Second interview requested
 - o Application under another registry category requested
 - o Candidate encouraged to mitigate application deficiencies prior to re-application

Registration

Successful applicants shall be awarded the title Chartered Marine Technologist. Applicants may use the title under the following conditions:

- A successful decision has been rendered by the Registry Panel, and has been confirmed in writing by the Society
- The applicant remains a member in good standing with either or both Society
- The applicant has paid all fees according to the fee schedule below
- The applicant abides by the terms of Continuing Professional Development
- The applicant abides by the terms of the Code of Professional Conduct and the Member Conduct Policy.

Successfully applicants may purchase a signed certificate for display. Details on how to purchase a certificate will be made available to successful applicants. Successful applicants agree to be listed on the Societies' registry.

Appeals

The Appeals Panel (AP) is responsible for managing requests for appeal of rejections for Registry. Requests for appeal may be sent to <u>registration@sut.org</u>. Those requesting an appeal should attach all original application materials and any communications from panelists to their request, along with a narrative explaining why the appeal is sought. Requests for appeal will be processed within thirty (30) days of receipt of the request.

Fees

Fees are listed on the Initial Application Form, below. Fees are subject to change and will be updated on the SUT website at <u>www.sut.org</u>. Fees are payable in GBP to SUT and US dollars to MTS and may be submitted by check or credit card. Returned checks will incur a fee of £25. Applicants may not receive a scheduling request for the PRI and may not receive a final determination from the Professional Review Interview until all fees have been paid. Note that successful applicants must remain a member in good standing with the Society for Underwater Technology or the Marine Technology Society and pay an annual registration fee to remain registered as a CMarTech. In addition to the annual membership fee, the application fees are as follows:

ASSESSMENT FEE			
	GBP	USD	
Assessment Fee	£180	250 * please note that exchange rates may vary	
Assessment Fee is due at time of application. Applicants are strongly encouraged to speak with the Registrar in advance of payment of fees.			
REGISTRATION ENTRANCE FEE			
Chartered Marine Technologist	£98	\$133	
Due at time of successful registration			
REGISTRATION FEE			
Chartered Marine Technologist	£71	\$96	
Ongoing annual fee			

Continuing Professional Development

Continuing Professional Development (CPD) opportunities are available at SUT and MTS events throughout the year. Review our calendar of events online at www.sut.org/events and www.mtsociety.org/events and www.mtsociety.org/events-calendar and

Registrants may also submit CPD units earned at other marine science events, at university offerings, at company-sponsored events, online, or other opportunities. Applicants should discuss their continuing professional development plans with the Interview Panel prior to termination of the interview to ensure that suitable CPD opportunities have been identified.

Per the candidate handbook and application, Registrants are required to complete Continuing Professional Development (CPD) annually to maintain their Registered status. Registered members are expected to submit a CPD plan during the application period and must continue to demonstrate a commitment to CPD to maintain their Registered status. Details of this requirement are enumerated below.

Requirements

ALL CHARTERED MEMBERS MUST COMPLETE A MINIMUM OF 8 HOURS CPD EACH PROGRAM YEAR.

- The program year shall run from July 1 June 30.
- You must be able to demonstrate completion of required hours by June 30 in each year.

Eight (8) hours of CPD are required annually to maintain Registered status. Of the required 8 hours:

- At least 2 hours must be obtained via SUT or MTS or an SUT or MTS-sponsored program or event.
- At least 4 hours must be within the domain of your technical expertise.
- At least 4 hours must be formal CPD. The remainder can be informal CPD.

Examples of <u>formal</u> CPD include:

- Completing or participating in a structured activity either as a delegate, speaker, panel member or other participant. This includes but is not limited to conferences, seminars, training courses (classroom, online), workshops, panels and group meetings.
- Webinars
- Participation in staff development training courses/activities provided by employers
- Sharing professional knowledge in a formal setting
- Writing relevant books, articles and papers
- Lecturing, teaching and addressing meetings on relevant subject matter
- Being an examiner or being involved in professional or higher education that is relevant.

Examples of informal CPD include:

- Reading, researching information via the internet, reviewing books or articles for professional purposes
- Experiential/workplace learning, reading and research
- Reading a relevant industry Journal or publication
- Reading a relevant book or publication
- Reading other professional body magazines or publications
- Professional research undertaken in the course of work
- Preparation of research for workplace projects
- Workplace learning/support
- Coaching, mentoring, peer review, work shadowing/secondments, meetings or project work

- CPD activity <u>may</u> be recorded and tracked online. If you track your CPD online, responding to a request from SUT or MTS for evidence of CPD completion will be simplified.
 - If you intend to track your CPD online, SUT and MTS require that you enter your CPD information in our online tracking system within one (1) month of completion of any CPD event.
- You may also track your CPD offline, however, when responding to a request from SUT or MTS for evidence of CPD completion, please be sure to have the following information available:
 - Number of hours completed
 - Within your technical domain
 - Via SUT or MTS
 - Formal vs. Informal CPD
 - Session information and evidence of completion
 - Name of sponsoring organization
 - Name of course/lecture/webinar/seminar/workshop
 - Length of session in minutes
 - Date of learning
 - Lecturer/presenter
 - Certificate of completion or copy of presentation

IN CERTAIN CIRCUMSTANCES IT MAY BE DIFFICULT TO MEET OR MAINTAIN THE MINIMUM CPD REQUIREMENTS.

- For example:
 - Those on maternity, paternity, adoption or family raising leave;
 - Members who are unemployed;
 - Those who are on long-term sick leave;
 - Those who may currently be non-practicing for other compassionate reasons.
- In these circumstances we will ask that Registered members keep up to date at least informally and that they consider their learning and development needs prior to returning so they are ready to competent to return to work when able to do so.
- Registered members who feel that they may have difficulty in meeting the requirements should contact the Societies (SUT-MTS) as soon as possible.

If you are non-compliant with CPD requirements and payment of fees for a period of three (3) years, you will be removed from the Register, and will have to re-apply to be re-listed.

Application Fields

Applications must be submitted online. Below is information you will need to gather in advance of application online. The application includes the following components:

- Completed online application form
- <u>Referee Form</u> (PDF)
- <u>Professional Development Report</u> (PDF)
- Your CV or resume
- Photocopies of your academic certificates initialed by your referee
- Registration fee

You must be a member of SUT or MTS to apply.

ACADEMIC QUALIFICATIONS (THIS SECTION MUST BE COMPLETED - 'please see CV' will NOT be accepted)

Your qualifications can help you to demonstrate evidence of your knowledge. You must submit authenticated copies (i.e. initialed by your referee as true copies of the originals) of your qualification certificates with your application form.

Start & Finish Dates	Establishment (e.g., University Chicago)	Degree/Diploma/Certificate (e.g., Meng (Hons) Marine Engineering)	Initials of Referee

SUMMARY OF CAREER PROGRESSION (THIS SECTION MUST BE COMPLETED – 'please see CV' will NOT be accepted) Please include details of your current or most recent job role and attach your Professional Development Report and a plan of CPD activities identifying the key responsibilities and accountabilities you have had during your career to date.

Dates	Current / most recent job role	Initials of Referee

GENERAL AREAS OF PRACTICE (Please check as appropriate)

- □ Fleet Manager
- □ Hydrographer
- □ Marine Superintendent (deck)
- □ Meteorologist
- 🗆 Pilot
- □ Marine Logistician
- □ Deck Officer & Ratings
- □ Marine Surveyor
- □ Shipping Professional
- □ Harbormaster
- □ University Faculty
- \Box Navigator
- □ Radar/Sonar Maintenance Expert
- □ Warfare Officers and Ratings
- □ Naval Officers and Ratings
- □ Instrumentation and Platform Design/Development
- \Box Other

DECLARATION

I hereby confirm that the statements made in this application are, to the best of my knowledge and belief, correct. I agree to abide by the SUT Code of Professional Conduct (please see our website for details), to maintain my Continuing Professional Development, and to uphold the values and principles of SUT.

I verify that I have at least five (5) years of professional experience in the registration category for which I am applying.

(TYPED or WRITTEN SIGNATURE)

ATTACHMENTS

You will upload and attach the following:

- <u>Referee Form</u> (PDF)
- <u>Professional Development Report</u> (PDF)
- Your CV or resume
- Photocopies of your academic certificates initialed by your referee

Registered Marine Technologist

Registered Marine Technologist (RMarTech)

Registered Marine Technologists are professionals, who harness, exploit, manage, use or apply marine technology in the pursuit of wealth creation and/or the provision of services in the marine sector. Registered Marine Technologists are characterised by their ability to act as exponents of today's technology through creativity and innovation. To this end, they maintain and manage applications of current and developing technology, and may undertake technological design, development, manufacture, construction and operation. Registered Marine Technologists are variously engaged in technical and commercial management and possess effective interpersonal skills.

Registered Marine Technologists continue to advance their knowledge, understanding and competence to a high level and are bound by the SUT and MTS Codes of Conduct.

Typically, Registered Marine Technologists will be professionals from the following disciplines: Fleet Managers, Hydrographers, Marine Superintendents (Deck), Meteorologists, Pilots, Marine Logisticians, Deck Officers and Ratings, Marine Surveyors, Shipping Professionals, Harbormasters, College Lecturers, Navigators, Radar/Sonar Maintenance Experts, Warfare Officers and Ratings and Naval Officers and Ratings.

Applicants seeking professional registration as a Registered Marine Technologist will need to demonstrate through their professional education/training and experience in roles directly related to the use or management of marine technology that they are eligible for the Registered Marine Technologist.

Benefits of RMarTech Registration

The Registered Marine Technologist designation has many benefits for individuals, employers and the public as a whole. RMarTech ensures high and improving standards across all technological disciplines; it reflects best practice and is set at an internationally recognised benchmark level. RMarTech encompasses high caliber professionals in the practice, application and teaching of technology, and recognizes the increasing focus on interdisciplinarity for the future of science, engineering and technology. Furthermore, RMarTech registration provides employers with additional assurance of the quality of their workforce. It is of benefit to:

Society, which will be more confident in the competence of an individual and need no longer be confused by a platform of letters and descriptions.

Individual practitioners, by identification as professional that sets them at the forefront of their profession and offers a passport to mobility.

Employers, with confirmation, through the designation, of the quality of a job applicant's application.

Government departments, seeking to appoint advisers or consultants would have an assurance about the level of an individual's expertise.

Professional bodies, with provision through the new designation of additional opportunities to benchmark their qualifications.

Higher education, which will be better able to set and monitor benchmarks for their technology courses, and to promote programs of study to meet the high standards required of a Registered Marine Technologist.

Regulatory Authorities, who could be confident in specifying the designation in legislation and regulations.

Legal credibility, enabling expert witness participation at a defined standard.

Professional standing, recognizing equality of excellence across the technology professions.

Required Level of Knowledge & Competence

Registered Marine Technologist is open to everyone, who can demonstrate the required high-level knowledge, understanding and professional competence. The exemplifying educational standard is a Bachelor ordinary level qualification in an approved subject. There are many routes that can be measured to meet this standard, including a combination of academic awards,

vocational qualifications 14 and experiential learning through work competence includes the knowledge, understanding and skills that underpin performance.

Registered Marine Technologists are required to maintain their professional competence, working within professional codes of conduct and participate actively within their profession. There is also a requirement for continuing professional development.

Assessment of Knowledge & Competence

To become registered as a Registered Marine Technologist, applicants must have their competence assessed by SUT or MTS. The assessment is made against standards rigorously applied by the SUT and MTS as being suitable for RMarTech.

The process of assessment starts with a written application. Claims to qualifications, experience, and training will require formal documented evidence. In giving details of experience, applicants will need to show how this relates to the required competencies for RMarTech.

Following a review of the documented evidence, the applicant will be required to undertake a professional review interview (PRI). The Society will inform the candidate of the necessary procedures. If deficiencies in the application emerge, the registrar will usually be able to suggest ways in which they can be addressed (this may involve further learning, training, or additional experience). Following the PRI, the application will be forwarded to the Registry Panel for a final disposition. If a candidate receives a positive decision on their application for RMarTech, they will become registered as a Registered Marine Technologist and their details will be included on the Society's Register of Registered Marine Technologists. If the Candidate's application is not approved by the Registry Panel, the Candidate may be granted a second interview, may be asked to resubmit under a different registry category, or may be asked to mitigate application deficiencies prior to re-application. Retention of the designation will require continued membership in the Society, completion of professional development requirements, and payment of the required annual dues and credential subscription. Candidates may elect to purchase membership in either or both Societies, according to their preference.

Additional information on assessment of knowledge and competence is available in the competency table.

Assessment Standards: RMarTech

All Candidates for registry must have at minimum of five (5) years of experience in their professional field. The following table details the generic competences that must be demonstrated in order to achieve registration as a Registered Marine Technologist. Given the diverse nature of technological practice, achieving the required level for these professional competencies will involve a broad range of activities. Candidates who believe they meet these or who wish to work towards them, should approach SUT or MTS to obtain further details on how to apply for registration.

Education

Normally, a formal education is an essential pre-requisite for registration, as it demonstrates the underpinning knowledge and understanding for professional competence. The following qualifications exemplify the required knowledge and understanding for Registered Marine Technologist registration.

An accredited Bachelor's degree

Or

A Higher National Certificate or Diploma or Foundation Degree, plus appropriate further learning to degree

level. Or

An NVQ4 or SVQ4

If an accredited Bachelor ordinary degree level qualification is not present, it is possible to demonstrate Bachelor ordinary degree level achievement through a combination of academic awards and/or appropriate experiential learning. Candidates applying through this route must clearly demonstrate that they have achieved the same level of knowledge and

understanding as those with the accredited qualifications. For example, a HND (or other Associate's level or Vocational training) qualification supported by appropriate professional experience may be sufficient to demonstrate a Bachelor level knowledge. Candidates must respond to each of the Competency Standards with specific examples of how they have met each standard through experiential learning. Candidates should be careful to explain what was learned from each experience.

Competence

Registered Marine Technologists must be competent throughout their professional lives using a combination of their knowledge, training and experience to be able to:

The Competence and Commitment Standard for Registered Marine Technologists. Registered Marine Technologists must be competent throughout their working life, by virtue of their education, training and experience, to:	Guidance – These are examples of activities which could demonstrate that you have achieved the RMarTech criteria.	
<u>A</u> . Use a combination of general and specialist knowledge	e and understanding to apply existing and emerging technology.	
 A1. Maintain and extend a sound theoretical approach to the application of technology in practice. This could include an ability to: Identify the limits of own personal knowledge and skills Strive to extend own technological capability Broaden and deepen own knowledge base through new applications and techniques. 	Engage in formal learning. Learn new theories and techniques in the workplace, at seminars, etc. Broaden your knowledge of relevant codes, standards and specifications.	
 A2. Use a sound evidence-based approach to problem- solving and contribute to continuous improvement. This could include an ability to: Establish users' requirements for improvement Use market intelligence and knowledge of technological developments to promote and improve the effectiveness of products, systems, and services Contribute to the evaluation and development of continuous improvement systems Apply knowledge and experience to investigate and solve problems arising during tasks and implement corrective action. 	Manage/contribute to market research, and product and process research and development. Involvement with cross- disciplinary working. Conduct statistically sound appraisal of data. Use evidence from best practice to improve effectiveness. Apply root cause analysis.	
B. Apply appropriate theoretical and practical methods to design, develop, manufacture, construct, commission, operate maintain, decommission and re- cycle processes, systems, services and products.		
 B1. Identify, review and select techniques, procedures, and methods to undertake tasks. This could include an ability to: Select a review methodology Review the potential for enhancing products, processes, systems, and services using evidence from best practice Establish an action plan to implement the results of the review. 	Contribute to the marketing of and tendering for new products, processes and systems. Contribute to the specification and procurement of new products, processes and systems. Develop decommissioning processes. Set targets, and draft programs and action plans. Schedule activities.	

 B2. Contribute to the design and development of solutions. This could include an ability to: Contribute to the identification and specification of design and development requirements for products, processes, systems, and services Identify potential operational problems and evaluate possible solutions, taking account of cost, quality, safety, reliability, appearance, fitness for purpose, and environmental impact Contribute to the design of solutions. 	Contribute to theoretical and applied research. Manage/contribute to value and whole life costing. Work in design teams. Draft specifications. Develop and test options. Identify resources and costs of options. Produce detailed designs.
 B3. Implement design solutions and contribute to their evaluation. This could include an ability to: Secure the resources required for implementation Implement design solutions, taking account of critical constraints Identify problems during implementation and take corrective action Contribute to the evaluation of design solutions Contribute to recommendations for improvement and actively learn from feedback on results. 	Follow the design process through into product manufacture. Operate and maintain processes, systems etc. Contribute to reports on the evaluation of the effectiveness of the designs. Contribute to product improvement. Interpret and analyze performance. Contribute to determining critical success factors.
C. Provide technical and commercial management.	<u></u>
 C1. Plan for effective project implementation. This could include an ability to: Identify the factors affecting the project implementation Prepare and agree implementation plans and method statements Secure the necessary resources and confirm roles in project team Apply the necessary contractual arrangements with other stakeholders (client, subcontractors, suppliers, etc.). 	Manage/contribute to project planning activities. Produce and implement procurement plans. Contribute to project risk assessments. Collaborate with key stakeholders. Plan programs and delivery of tasks. Identify resources and costs. Prepare and agree contracts/work orders.
 C2. Manage the planning, budgeting and organisation of tasks, people and resources. This could include an ability to: Operate appropriate management systems Work to the agreed quality standards, program, and budget, within legal and statutory requirements Manage work teams, coordinating project activities Identify variations from quality standards, program, and budgets, and take corrective action. Evaluate performance and recommend improvements. 	Manage/contribute to project operations. Manage the balance between quality, cost and time. Manage contingency processes. Contribute to the management of project funding, payments and recovery. Satisfy legal and statutory obligations. Manage tasks within identified financial, commercial and regulatory constraints.
 C3. Manage teams and develop staff to meet changing technical and managerial needs. This could include an ability to: Agree objectives and work plans with teams and individuals Identify team and individual needs and plan for their development 	Carry out/contribute to staff appraisals. Plan/contribute to the training and development of staff. Gather evidence from colleagues of the management, assessment and feedback that you have provided. Carry out/contribute to disciplinary procedures.

 Manage and support team and individual development Assess team and individual performance, and provide feedback. 		
 C4. Manage continuous quality improvement. This could include an ability to: Ensure the application of quality management principles by team members and colleagues Manage operations to maintain quality standards Evaluate projects and make recommendations for improvement. 	Promote quality. Manage/contribute to best practice methods of continuous improvement, e.g. ISO 9000, EFQM, balanced scorecard. Carry out/contribute to quality audits. Monitor, maintain and improve delivery. Identify, implement, and evaluate changes to meet quality objectives.	
D. Demonstrate effective interpersonal skills.		
 D1. Communicate in English with others at all levels. This could include an ability to: Contribute to, chair, and record meetings and discussions Prepare letters, documents, and reports on technical matters Exchange information and provide advice to technical and non-technical colleagues. 	Reports, minutes of meetings, letters, programs, drawings, specifications.	
 D2. Present and discuss proposals. This could include an ability to: Prepare and deliver appropriate presentations Manage debates with audiences Feed the results back to improve the proposals. 	Presentations, records of discussions and their outcomes.	
 D3. Demonstrate personal and social skills. This could include an ability to: Know and manage own emotions, strengths, and weaknesses Be aware of the needs and concerns of others Be confident and flexible in dealing with new and changing interpersonal situations Identify, agree and work towards collective goals Create, maintain, and enhance productive working relationships, and resolve conflicts. 	Records of meetings. Evidence from colleagues of your personal and social skills. Contribute to productive working relationships. Apply diversity and anti-discrimination legislation.	
E. Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession, and the environment.		
E1. Comply with relevant codes of conduct. This could include an ability to:Comply with the relevant rules of professional conduct of own professional body	Contribute to the affairs of the IMarEST. Work with a variety of conditions of contract.	

Manage work within all relevant legislation and regulatory frameworks, including social and employment legislation.	
 E2. Manage and apply safe systems of work. This could include an ability to: Identify and take responsibility for own obligations for health, safety and welfare issues Manage systems that satisfy health, safety and welfare requirements Develop and implement appropriate hazard identification and risk management systems Manage, evaluate and improve these systems. 	Undertake formal H&S training. Work with H&S legislation and best practice, e.g. HASAW 1974, CDM regs, OHSAS 18001:2007 and company safety policies. Carry out safety audits. Identify and minimise hazards. Assess and control risks. Deliver H&S briefings & inductions.
 E3. Undertake activities in a way that contributes to sustainable development. This could include an ability to: Operate and act responsibly, taking account of the need to progress environmental, social, and economic outcomes simultaneously Provide products and services which maintain and enhance the quality of the environment and community, and meet financial objectives Understand and encourage stakeholder involvement in sustainable development. 	Carry out/contribute to environmental impact assessments. Carry out/contribute to environmental risk assessments. Manage best practice environmental management systems, e.g. ISO 14000. Work within environmental legislation. Adopt sustainable practices. Contribute to "triple bottom line" (i.e. social, economic and environmental) outcomes.
 E4. Carry out continuing professional development necessary to maintain and enhance competence in own area of practice. This could include an ability to: Undertake reviews of own development needs Prepare action plans to meet personal and organisational objectives Carry out planned (and unplanned) CPD activities Maintain evidence of competence development Evaluate CPD outcomes against the action plans Assist others with their own CPD. 	Keep up to date with relevant national and international issues. Maintain CPD plans and records. Involvement with the affairs of SUT and/or MTS. Evidence of your development through on-the-job learning, private study, in-house courses, external courses and conferences.

Professional Development

Professional development is a key part of developing the competence required to achieve the standard for Registered Marine Technologist registration. Aspiring Registered Marine Technologists learn to apply their knowledge and understanding and apply professional judgement through professional development. Candidates may rely on professional development opportunities offered via SUT or MTS events, university training, workplace training, accredited professional development schemes, or other high-level professional development opportunities. For candidates seeking additional information about professional development, the Registrar will be able to provide information and guidance necessary and may be able to put them in touch with a mentor to assist them through the process and help to identify any skills gaps in their development.

Anyone seeking registration as a Registered Marine Technologist should maintain a detailed record of their development, responsibilities and experience, verified by referees, in order to be best prepared to provide the evidence of professional competence commensurate for RMarTech registration.

Maintaining Competence & Demonstrating a Commitment to CPD

Once RMarTech registration has been achieved, Registered Marine Technologists have an obligation to maintain professional competence. SUT and MTS are actively developing an online tracking system for professional development units, which will be made available to those registered if the pilot program is continued.

Code of Professional Conduct

All successful candidates are required to make a personal commitment to live by the appropriate codes of professional conduct, recognizing their obligations to society, the marine professions and the environment. The SUT code of conduct is available online here: <u>https://www.sut.org/about-the-sut/society-for-underwater-technology-ethical-standards-for-members-and-branches/</u>. The MTS code of conduct is available online here: <u>http://www.mtsociety.org/wp-content/uploads/2019/01/3200-Member-Conduct-Policy-2012.pdf</u>.

The Application Process



Initial Application

Please review the competency standards in advance of your application. If you think you meet the criteria for RMarTech registration, submit the **Initial Application Form** included in this Handbook. Your application will consist of:

- Completed **online** application
- Referee Form (PDF)
- Professional Development Report (PDF) refer to guidance below
- Your CV
- Photocopies of your academic certificates initialed by your referee
- Registration fee (see the worksheet in the application below)

Once you have submitted your application, your materials will be forwarded to the Registrar. The Registrar will review your submission and will render a decision within seven (7) business days, either to forward your materials to the Interview Phase, or to reject your application. Unsuccessful applicants will receive feedback from the Registrar indicating the areas in need of improvement for future application on the *Professional Development Recommendation Form*, as well as information about the appeals and reapplication process. We strongly encourage unsuccessful applicants to review the *Professional Development Recommendation Form* to determine which areas of the application need improvement prior to reapplication. <u>Reapplication is encouraged</u>.

The Interview

Applicants meeting the minimum standards for the Initial Application Process, and who are deemed likely to succeed in the Interview Phase will be forwarded to the Professional Review Interview (PRI). The Registrar will review the application and select appropriate interviewers for the specific applicant based on experience and knowledge of the applicant's specific domain of work in marine technology. The Registrar will identify at least three (3) available dates and times for a proposed interview of the applicant and will schedule the interview with the applicant according to his/her preference of proposed interview dates/times. Scheduling of the interview may occur digitally. Interviews must take place within six (6) months of initial application. Exceptions may be made based on circumstances; requests for extensions must be made in writing. Extensions are not guaranteed.

The Interview is a critical step is assessing the full range of mastery of each applicant. Interviews are conducted by no fewer than 2 panelists, at least one with broad marine technology knowledge, and at least one with knowledge specific to the applicant's domain of work. The applicant will be questioned on his/her academic experiences, professional development accomplishments, and continuing professional development plans. Questions will align closely with the domains of competency outlined above.

Assessors will make note of the strengths and weaknesses of the applicant and will record recommendations on the *Professional Development Recommendation Form.* Within seven (7) days of the interview, panelists will forward their recommendation to the Registry Panel, which will make the final decision on disposition of applications. Applicants will be notified in writing of the determination of the Registry Panel following their decision. Possible outcomes include:

- Application approved
- Application not approved
 - Second interview requested
 - Application under another registry category requested
 - o Candidate encouraged to mitigate application deficiencies prior to re-application

Registration

Successful applicants shall be awarded the title Registered Marine Technologist. Applicants may use the title under the following conditions:

- A successful decision has been rendered by the Registry Panel, and has been confirmed in writing by the Society
- The applicant remains a member in good standing with either or both Society
- The applicant has paid all fees according to the fee schedule below
- The applicant abides by the terms of Continuing Professional Development
- The applicant abides by the terms of the Code of Professional Conduct and the Member Conduct Policy.

Successfully applicants may purchase a signed certificate for display. Details on how to purchase a certificate will be made available to successful applicants. Successful applicants agree to be listed on the Societies' registry.

Appeals

The Appeals Panel (AP) is responsible for managing requests for appeal of rejections for Registry. Requests for appeal may be <u>registration@sut.org</u>. Those requesting an appeal should attach all original application materials and any communications from panelists to their request, along with a narrative explaining why the appeal is sought. Requests for appeal will be processed within thirty (30) days of receipt of the request.

Fees

Fees are listed on the Initial Application Form, below. Fees are subject to change and will be updated on the SUT website at <u>www.sut.org</u>. Fees are payable in GBP to SUT and US dollars to MTS and may be submitted by check or credit card. Returned checks will incur a fee of £25. Applicants may not receive a scheduling request for the PRI and may not receive a final determination from the Professional Review Interview until all fees have been paid. Note that successful applicants must remain a member in good standing with the Society for Underwater Technology or the Marine Technology Society and pay an annual registration fee to remain registered as an RMarTech. In addition to the annual membership fee, the application fees are as follows:

ASSESSMENT FEE			
	GBP	USD	
Assessment Fee	£180	\$250* please note that exchange rates may vary	
Assessment Fee is due at time of application. A	Assessment Fee is due at time of application. Applicants are strongly encouraged to speak with the Registrar in advance of payment of fees.		
REGISTRATION ENTRANCE FEE			
Registered Marine Technologist	£90	\$122	
Due at time of successful registration			
REGISTRATION FEE			
Registered Marine Technologist	£65	\$88	
Ongoing annual fee			

Continuing Professional Development

Continuing Professional Development (CPD) opportunities are available at SUT and MTS events throughout the year. Review our calendar of events online at https://www.sut.org/events/ and https://www.mtsociety.org/events/ and https://www.mtsociety.org/events-calendar.

Registrants may also submit CPD units earned at other marine science events, at university offerings, at company-sponsored events, online, or other opportunities. Applicants should discuss their continuing professional development plans with the Interview Panel prior to termination of the interview to ensure that suitable CPD opportunities have been identified.

Per the candidate handbook and application, Registrants are required to complete Continuing Professional Development (CPD) annually to maintain their Registered status. Registered members are expected to submit a CPD plan during the application period and must continue to demonstrate a commitment to CPD to maintain their Registered status. Details of this requirement are enumerated below.

Requirements

ALL CHARTERED MEMBERS MUST COMPLETE A MINIMUM OF 8 HOURS CPD EACH PROGRAM YEAR.

- The program year shall run from July 1 June 30.
- You must be able to demonstrate completion of required hours by June 30 in each year.

Eight (8) hours of CPD are required annually to maintain Registered status. Of the required 8 hours:

- At least 2 hours must be obtained via SUT or MTS, or an SUT or MTS-sponsored program or event.
- At least 4 hours must be within the domain of your technical expertise.
- At least 4 hours must be formal CPD. The remainder can be informal CPD.

Examples of <u>formal</u> CPD include:

- Completing or participating in a structured activity either as a delegate, speaker, panel member or other participant. This includes but is not limited to conferences, seminars, training courses (classroom, online), workshops, panels and group meetings.
- Webinars
- Participation in staff development training courses/activities provided by employers
- Sharing professional knowledge in a formal setting
- Writing relevant books, articles and papers
- Lecturing, teaching and addressing meetings on relevant subject matter
- Being an examiner or being involved in professional or higher education that is relevant.

Examples of informal CPD include:

- Reading, researching information via the internet, reviewing books or articles for professional purposes
- Experiential/workplace learning, reading and research
- Reading a relevant industry Journal or publication
- Reading a relevant book or publication
- Reading other professional body magazines or publications
- Professional research undertaken in the course of work
- Preparation of research for workplace projects
- Workplace learning/support
- Coaching, mentoring, peer review, work shadowing/secondments, meetings or project work

- CPD activity <u>may</u> be recorded and tracked online. If you track your CPD online, responding to a request from SUT or MTS for evidence of CPD completion will be simplified.
 - If you intend to track your CPD online, SUT and MTS require that you enter your CPD information in our online tracking system within one (1) month of completion of any CPD event.
- You may also track your CPD offline, however, when responding to a request from SUT or MTS for evidence of CPD completion, please be sure to have the following information available:
 - Number of hours completed
 - Within your technical domain
 - Via SUT or MTS
 - Formal vs. Informal CPD
 - Session information and evidence of completion
 - Name of sponsoring organization
 - Name of course/lecture/webinar/seminar/workshop
 - Length of session in minutes
 - Date of learning
 - Lecturer/presenter
 - Certificate of completion or copy of presentation

IN CERTAIN CIRCUMSTANCES IT MAY BE DIFFICULT TO MEET OR MAINTAIN THE MINIMUM CPD REQUIREMENTS.

- For example:
 - Those on maternity, paternity, adoption or family raising leave;
 - Members who are unemployed;
 - Those who are on long-term sick leave;
 - Those who may currently be non-practicing for other compassionate reasons.
- In these circumstances we will ask that Registered members keep up to date at least informally and that they consider their learning and development needs prior to returning so they are ready to competent to return to work when able to do so.
- Registered members who feel that they may have difficulty in meeting the requirements should contact the Societies (SUT-MTS) as soon as possible.

Application Fields

Applications must be submitted online. Below is information you will need to gather in advance of application online. The application includes the following components:

- Completed online application form
- <u>Referee Form</u> (PDF)
- <u>Professional Development Report</u> (PDF)
- Your CV or resume
- Photocopies of your academic certificates initialed by your referee
- Registration fee

You must be a member of SUT or MTS to apply.

ACADEMIC QUALIFICATIONS (THIS SECTION MUST BE COMPLETED – 'please see CV' will NOT be accepted)

Your qualifications can help you to demonstrate evidence of your knowledge. You must submit authenticated copies (i.e. initialed by your referee as true copies of the originals) of your qualification certificates with your application form.

Start & Finish Dates	Establishment (e.g., University Chicago)	Degree/Diploma/Certificate (e.g., Meng (Hons) Marine Engineering)	Initials of Referee

SUMMARY OF CAREER PROGRESSION (THIS SECTION MUST BE COMPLETED – 'please see CV' will NOT be accepted) Please include details of your current or most recent job role and attach your Professional Development Report and a plan of CPD activities identifying the key responsibilities and accountabilities you have had during your career to date.

Dates	Current / most recent job role	Initials of Referee

GENERAL AREAS OF PRACTICE (Please check as appropriate)

- □ Fleet Manager
- □ Hydrographer
- □ Marine Superintendent (deck)
- □ Meteorologist
- 🗆 Pilot
- □ Marine Logistician
- □ Deck Officer & Ratings
- □ Marine Surveyor
- □ Shipping Professional
- □ Harbormaster
- □ University Faculty
- □ Navigator
- □ Radar/Sonar Maintenance Expert
- □ Warfare Officers and Ratings
- □ Naval Officers and Ratings
- □ Instrumentation and Platform Design/Development
- \Box Other

DECLARATION

I hereby confirm that the statements made in this application are, to the best of my knowledge and belief, correct. I agree to abide by the SUT Code of Professional Conduct (please see our website for details), to maintain my Continuing Professional Development, and to uphold the values and principles of SUT.

I verify that I have at least 5 years of professional experience in the registration category for which I am applying.

(TYPED SIGNATURE)

ATTACHMENTS

You will upload and attach the following:

- <u>Referee Form</u> (PDF)
- <u>Professional Development Report</u> (PDF)
- Your CV or resume
- Photocopies of your academic certificates initialed by your referee

Marine Technician

Marine Technician (MarTech)

Marine Technicians are professional Scientists or Technologists, who harness, exploit, manage, use or apply marine science or marine technology in the pursuit of research, wealth creation and/or the provision of services in the marine sector. Marine Technicians are involved in applying proven techniques and procedures to the solution of practical scientific and technological problems. They carry supervisory or technical responsibility and are competent to exercise creative aptitudes and skills within defined fields of science and technology. Marine Technicians contribute to the design, development, manufacture, commissioning, operation or maintenance of products, equipment, processes, research or services.

Marine Technicians are required to apply safe systems of work and possess effective interpersonal skills. Marine Technicians continue to advance their knowledge, understanding and competence to a high level and are bound by the SUT and/or MTS Code of Conduct.

Applicants seeking professional registration as a Marine Technician, who do not work in these areas, will need to demonstrate through their professional education/training and experience in roles directly related to the use or management of marine technology that they are eligible for Marine Technician Registration.

Benefits of MarTech Registration

The Marine Technician designation has many benefits for individuals, employers and the public as a whole. MarTech ensures high and improving standards across all scientific and technological disciplines; it reflects best practice and is set at an internationally recognized benchmark level. MarTech encompasses high caliber professionals in the practice, application and teaching of technology, and recognises the increasing focus on interdisciplinarity for the future of science, engineering and technology. Furthermore, MarTech registration provides employers with additional assurance of the quality of their workforce. It is of benefit to:

Society, which will be more confident in the competence of an individual and need no longer be confused by a platform of letters and descriptions.

Individual practitioners, by identification as professional that sets them at the forefront of their profession and offers a passport to mobility.

Employers, with confirmation, through the designation, of the quality of a job applicant's application.

Government departments, seeking to appoint advisers or consultants would have an assurance about the level of an individual's expertise.

Professional bodies, with provision through the new designation of additional opportunities to benchmark their qualifications.

Higher education, which will be better able to set and monitor benchmarks for their technology courses, and to promote programs of study to meet the high standards required of a Registered Marine Technologist.

Regulatory Authorities, who could be confident in specifying the designation in legislation and regulations.

Legal credibility, enabling expert witness participation at a defined standard.

Professional standing, recognising equality of excellence across the technology professions.

Required Knowledge & Competence

Marine Technician is open to everyone who can demonstrate the required knowledge, understanding and professional competence. The exemplifying educational standard is a Level 3 NVQ or an advanced modern apprenticeship in an approved subject. There are many routes that can be offered to meet this standard, including a combination of academic awards, vocational qualifications and experiential learning through work competence includes the knowledge, understanding and skills that underpin performance.

Marine Technicians are required to maintain their professional competence, working within professional codes of conduct and participate actively within their profession. There is also a requirement for continuing professional development.

Assessment of knowledge and competence

To become registered as a Marine Technician, applicants must have their competence assessed by SUT or MTS. The assessment is made against standards rigorously assessed by SUT and MTS as being suitable for MarTech.

The process of assessment starts with a written application. Claims to qualifications, experience and training will require formal documented evidence. In giving details of experience, applicants will need to show how this relates to the required competencies for MarTech.

Following a review of the documented evidence, the Membership Committee may require the applicant to undertake a professional review interview (PRI), or may forward the application directly to the Registry Panel. Administrative Staff will inform the candidate of the necessary procedures. If deficiencies in the application emerge, the Registrar will usually be able to suggest ways in which they can be addressed (this may involve further learning, training or additional experience). If the Candidate is forwarded for a PRI, following the PRI, the application will be forwarded to the Registry Panel for a final disposition. If a candidate receives a positive decision on their application for MarTech, they will become registered as a Marine Technician and their details will be included on the Society's Register of Marine Technicians. If the Candidate's application is not approved by the Registry Panel, the Candidate may be granted a second interview, may be asked to resubmit under a different registry category, or may be asked to mitigate application deficiencies prior to re-application. Retention of the designation will require continued membership in the Society, completion of professional development requirements, and payment of the required annual dues and credential subscription. Candidates may elect to purchase membership in either or both Societies, according to their preference.

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Education

Normally, formal education is a pre-requisite for registration, as it demonstrates the underpinning knowledge and understanding for professional competence. The following qualifications exemplify the required knowledge and understanding for Marine Technician registration.

Standard Route

Integrated training and experience such as is provided by many Advanced Apprenticeships can provide most, or all, of the knowledge and experience necessary, and may lead directly to Marine Technician registration. Other qualifications can provide a straightforward way of demonstrating that part of the necessary competence has been acquired. The following are examples of qualifications which an applicant for Marine Technician registration might hold:

- An approved National Certificate (UK), Certificate (US), National Diploma (UK), or Diploma (US)
- An approved qualification at level 6 in the Scottish Qualifications and Credit Framework
- A City & Guilds Higher Professional Diploma (UK)
- A technical certificate as part of an Advanced Apprenticeship Program
- An NVQ3 or SVQ3
- A work-based learning route
- Qualifications in similar areas providing they are assessed as equivalent by SUT or MTS
- An accredited Associate's Degree program.

Qualifications at this level are subject to change as a result of policy developments. Please consult SUT or MTS for details of any changes or additions to this list.

Individual Route

Many potential professional Marine Technicians will not have had the advantage of formal training and will need to demonstrate they have acquired the necessary competences through extended experience, some of this supervised. Experienced, practicing professional Marine Technicians are often found to have gained the necessary knowledge and skills for their job through working closely with other skilled colleagues over a number of years. Thus, individuals without the types of qualifications listed above may apply for an Individual Route assessment. This separate procedure, administered by SUT and MTS, involves an in-depth appraisal of the applicant's competence. Evidence of employer recognition of competences and relevant skills will assist in achieving registration. SUT or MTS may be able to provide a mentor to help applicants to address any gaps in their training and experience portfolio.

If one of these approved qualifications is not offered, it is possible to demonstrate the appropriate level of achievement through a combination of academic awards and/or appropriate experiential learning. Candidates applying through this route must clearly demonstrate that they have achieved the same level of knowledge and understanding as those with the accredited qualifications. Candidates must respond to each of the Competency Standards with specific examples of how they have met each standard through experiential learning. Candidates should be careful to explain what was learned from each experience.

Competence

Marine Technicians must be competent throughout their professional lives using a combination of their knowledge, training and experience to be able to:

MarTech		
The Competence and Commitment Standards for Marine	Guidance – These are examples of activities which could	
Technicians. Marine Technicians must be competent	demonstrate that you have achieved the MarTech criteria.	
throughout their working life, by virtue of their education,		
training and experience, to:		
<u>A</u> . Use appropriate knowledge and understanding to apply	The reviewers will be looking for evidence that you have the	
technical and practical skills. This includes the ability to:	know-how to do the job and were able to go beyond the	
	immediate requirements and use your initiative and	
	experience to solve a problem or improve a process.	
A1. review and select appropriate techniques, procedures,	Describe something in your work you were involved in which	
and methods to undertake tasks	didn't quite work and explain why.	
A2. use appropriate principles.	Drawing from your direct experience, this might be an	
	explanation of how a piece of equipment, system or	
	mechanism works.	
B. Contribute to the design, development, manufacture,	Explain how you contribute to one or more of these	
construction, commissioning, operation or maintenance of	activities.	
products, equipment, processes, systems, or services.		
B1. identify problems and apply diagnostic methods	Show an example of how you have used	
to identify causes and achieve satisfactory solutions	measurement, monitoring, and assessment to identify	
D2 identify experies and use recourses offectively to	the source of a problem or to identify an opportunity.	
B2. identify, organise, and use resources effectively to	Illustrate how you make decisions about what material,	
complete tasks, with consideration for cost, quality,	component, people or plant to use or how to introduce a	
safety, and environmental impact.	new method of working.	
C. Accept and exercise personal responsibility.	Describe an experience or instance where you have had to	
	accept personal responsibility for seeing a process through	
C1 work roliably and offectively without along supervision to	to completion within agreed targets.	
C1. work reliably and effectively without close supervision to	Your evidence should show how you personally identified	
the appropriate codes of practice	and agreed with what had to be done and to what standards	
	on a typical project.	

C2. accept responsibility for work of self and others	Minutes of meetings; site notes and instructions; Variation Orders; programs of work; specifications, drawing and reports; appraisals. Activity not associated with your job can contribute evidence.
C3. accept, allocate and supervise technical and other tasks.	Minutes of meetings; site notes and instructions; Variation Orders; programs of work; specifications, drawing and reports; appraisals. Activity not associated with your job can contribute evidence.
D. Use effective communication and interpersonal skills.	You will need to show you can: contribute to discussions; make a presentation; read and synthesize information; write different types of documents.
D1. use oral, written and electronic methods for the communication in English of technical and other information	Letters, reports, drawings, advice, minutes, including progress meetings, appraisals, work instructions, and other task planning and organising documents certificated by colleagues, clients, customers or management. Your application itself will be relevant.
D2. work effectively with colleagues, clients, suppliers and the public.	Examples of how this has occurred, and your role at the time.
E. Make a personal commitment to an appropriate code of professional conduct, recognising obligations to society, the profession and the environment. In order to satisfy this commitment, they must:	Your commitment will be to become part of the profession and uphold the standards to which all members subscribe. You need to show that you have read and understood the SUT and/or MTS Code of Conduct.
E1. Comply with the relevant Codes of Conduct	You will need to sign a personal undertaking. The professional review involves demonstration of, or discussion of, your position on typical ethical challenges.
E2. manage and apply safe systems of work	Evidence of applying current safety requirements, such as examples of good practice you adopt in your work. You will need to show that you have received a formal safety instruction relating to your workplace, such as a CSCS safety test, or an update on statutory regulations such as COSHH requirements.
E3. undertake work in a way that contributes to sustainable development	Examples of methodical assessment of risk in specific projects; actions taken to minimise risk to health, safety, society or the environment.
E4. carry out continuing professional development, including opportunities for this offered by SUT and/or MTS, to ensure competence in areas and at the level of future intended practice.	This means demonstrating that you have actively sought to keep yourself up to date, perhaps by studying new standards or techniques, or made use of magazines, Branch meetings and other opportunities to network in order to keep abreast of change.

Professional Development

Professional development is a key part of developing the competence required to achieve the standard for Marine Technician registration. Aspiring Marine Technicians learn to apply their knowledge and understanding and apply professional judgement through professional development. Candidates may rely on professional development opportunities offered via SUT or MTS events, university training, workplace training, accredited professional development schemes, or other high-level professional development opportunities. For candidates seeking additional information about professional development, the Registrar will be able to provide information and guidance necessary and may be able to put them in touch with a mentor to assist them through the process and help to identify any skills gaps in their development.

Anyone seeking registration as a Marine Technician should maintain a detailed record of their development, responsibilities and experience, verified by referees, in order to be best prepared to provide the evidence of professional competence commensurate for MarTech registration.

Maintaining Competence & Demonstrating a Commitment to CPD

Once MarTech registration has been achieved, Marine Technicians have an obligation to maintain professional competence. SUT and MTS are actively developing an online tracking system for professional development units, which will be made available to those registered if the pilot program is continued.

Code of Professional Conduct

All successful candidates are required to make a personal commitment to live by the appropriate codes of professional conduct, recognising their obligations to society, the marine professions and the environment. The SUT code of conduct is available online here: https://www.sut.org/about-the-sut/society-for-underwater-technology-ethical-standards-for-members-and-branches/. The MTS code of conduct is available online here: http://www.mtsociety.org/wp-content/wploads/2019/01/3200-Member-Conduct-Policy-2012.pdf.

The Application Process



*Note that not all candidates will be required to undergo a Professional Review Interview. Most candidates will be able to complete the application at the documentary review stage.

Initial Application

Please review the competency standards in advance of your application. If you think you meet the criteria for MarTech registration, submit the **Initial Application Form** included in this Handbook. Your application will consist of:

- Completed **online** application
- Referee Form (PDF)
- Professional Development Report (PDF) refer to guidance below
- Your CV
- Photocopies of your academic certificates initialed by your referee
- Registration fee (see the worksheet in the application below)

Once you have submitted your application, your materials will be forwarded to the Registrar. The Registrar will review your submission and will render a decision within seven (7) business days, either to recommend your application to the Registry Panel, to forward your materials to the Interview Phase, or to reject your application. Unsuccessful applicants will receive feedback from the Registrar indicating the areas in need of improvement for future application on the *Professional Development Recommendation Form*, as well as information about the appeals and reapplication process. We strongly encourage unsuccessful applicants to review the *Professional Development Recommendation Form* to determine which areas of the application need improvement prior to reapplication. <u>Reapplication is encouraged</u>.

The Interview

Some Applicants may need to participate in a Professional Review Interview, if deemed appropriate by the Registrar. The Registrar will review the application and select appropriate interviewers for the specific applicant based on experience and knowledge of the applicant's specific domain of work in marine technology. The Registrar will identify at least three (3) available dates and times for a proposed interview of the applicant and will schedule the interview with the applicant according to his/her preference of proposed interview dates/times. Scheduling of the interview may occur digitally. Interviews must take place within six (6) months of initial application. Exceptions may be made based on circumstances; requests for extensions must be made in writing. Extensions are not guaranteed.

The Interview is a critical step is assessing the full range of mastery of each applicant. Interviews are conducted by no fewer than 2 panelists, at least one with broad marine technology knowledge, and at least one with knowledge specific to the applicant's domain of work. The applicant will be questioned on his/her academic experiences, professional development

accomplishments, and continuing professional development plans. Questions will align closely with the domains of competency outlined above.

Assessors will make note of the strengths and weaknesses of the applicant and will record recommendations on the *Professional Development Recommendation Form*. Within seven (7) days of the interview, panelists will forward their recommendation to the Registry Panel, which will make the final decision on disposition of applications. Applicants will be notified in writing of the determination of the Registry Panel following their decision. Possible outcomes include:

- Application approved
- Application not approved
 - Second interview requested
 - Application under another registry category requested
 - o Candidate encouraged to mitigate application deficiencies prior to re-application

Registration

Successful applicants shall be awarded the title Marine Technician. Applicants may use the title under the following conditions:

- A successful decision has been rendered by the Registry Panel, and has been confirmed in writing by the Society
- The applicant remains a member in good standing with either or both Society
- The applicant has paid all fees according to the fee schedule below
- The applicant abides by the terms of Continuing Professional Development
- The applicant abides by the terms of the Code of Professional Conduct and the Member Conduct Policy.

Successfully applicants may purchase a signed certificate for display. Details on how to purchase a certificate will be made available to successful applicants. Successful applicants agree to be listed on the Societies' registry.

Appeals

The Appeals Panel (AP) is responsible for managing requests for appeal of rejections for Registry. Requests for appeal may be sent to <u>registration@sut.org</u>. Those requesting an appeal should attach all original application materials and any communications from panelists to their request, along with a narrative explaining why the appeal is sought. Requests for appeal will be processed within thirty (30) days of receipt of the request.

Fees

Fees are listed on the Initial Application Form, below. Fees are subject to change and will be updated on the SUT website at <u>www.sut.org</u>. Fees are payable in GBP to SUT and US dollars to MTS and may be submitted by check or credit card. Returned checks will incur a fee of £25. Applicants may not receive a scheduling request for the PRI and may not receive a final determination from the Professional Review Interview until all fees have been paid. Note that successful applicants must remain a member in good standing with the Society for Underwater Technology or the Marine Technology Society and pay an annual registration fee to remain registered as a MarTech. In addition to the annual membership fee, the application fees are as follows:

ASSESSMENT FEE						
GBP USD						
Assessment Fee £180 \$250 * please note that exchange						
Assessment Fee is due at time of application. A	pplicants are strongly encouraged to speak with t	the Registrar in advance of payment of fees.				
REGISTRATION ENTRANCE FEE						
Marine Technician £63 \$86						
Due at time of successful registration						
	REGISTRATION FEE					
Marine Technician £50 \$68						
Ongoing annual fee						

Continuing Professional Development

Continuing Professional Development (CPD) opportunities are available at SUT and MTS events throughout the year. Review our calendar of events online at https://www.sut.org/events/ and https://www.sut.org/events/ and https://www.sut.org/events/ and https://www.sut.org/events/ and https://www.mtsociety.org/events/ and https://www.mtsociety.org/events/ and https://www.mtsociety.org/events-calendar.

Registrants may also submit CPD units earned at other marine science events, at university offerings, at company-sponsored events, online, or other opportunities. Applicants should discuss their continuing professional development plans with the Interview Panel prior to termination of the interview to ensure that suitable CPD opportunities have been identified.

Per the candidate handbook and application, Registrants are required to complete Continuing Professional Development (CPD) annually to maintain their Registered status. Registered members are expected to submit a CPD plan during the application period and must continue to demonstrate a commitment to CPD to maintain their Registered status. Details of this requirement are enumerated below.

Requirements

ALL CHARTERED MEMBERS MUST COMPLETE A MINIMUM OF 8 HOURS CPD EACH PROGRAM YEAR.

- The program year shall run from July 1 June 30.
- You must be able to demonstrate completion of required hours by June 30 in each year.

Eight (8) hours of CPD are required annually to maintain Registered status. Of the required 8 hours:

- At least 2 hours must be obtained via SUT or MTS, or an SUT or MTS-sponsored program or event.
- At least 4 hours must be within the domain of your technical expertise.
- At least 4 hours must be formal CPD. The remainder can be informal CPD.

Examples of <u>formal</u> CPD include:

- Completing or participating in a structured activity either as a delegate, speaker, panel member or other participant. This includes but is not limited to conferences, seminars, training courses (classroom, online), workshops, panels and group meetings.
- Webinars
- Participation in staff development training courses/activities provided by employers
- Sharing professional knowledge in a formal setting
- Writing relevant books, articles and papers
- Lecturing, teaching and addressing meetings on relevant subject matter
- Being an examiner or being involved in professional or higher education that is relevant.

Examples of informal CPD include:

- Reading, researching information via the internet, reviewing books or articles for professional purposes
- Experiential/workplace learning, reading and research
- Reading a relevant industry Journal or publication
- Reading a relevant book or publication
- Reading other professional body magazines or publications
- Professional research undertaken in the course of work
- Preparation of research for workplace projects
- Workplace learning/support
- Coaching, mentoring, peer review, work shadowing/secondments, meetings or project work

- CPD activity <u>may</u> be recorded and tracked online. If you track your CPD online, responding to a request from SUT or MTS for evidence of CPD completion will be simplified.
 - If you intend to track your CPD online, SUT and MTS require that you enter your CPD information in our online tracking system within one (1) month of completion of any CPD event.
- You may also track your CPD offline, however, when responding to a request from SUT or MTS for evidence of CPD completion, please be sure to have the following information available:
 - Number of hours completed
 - Within your technical domain
 - Via SUT or MTS
 - Formal vs. Informal CPD
 - Session information and evidence of completion
 - Name of sponsoring organization
 - Name of course/lecture/webinar/seminar/workshop
 - Length of session in minutes
 - Date of learning
 - Lecturer/presenter
 - Certificate of completion or copy of presentation

IN CERTAIN CIRCUMSTANCES IT MAY BE DIFFICULT TO MEET OR MAINTAIN THE MINIMUM CPD REQUIREMENTS.

- For example:
 - Those on maternity, paternity, adoption or family raising leave;
 - Members who are unemployed;
 - Those who are on long-term sick leave;
 - Those who may currently be non-practicing for other compassionate reasons.
- In these circumstances we will ask that Registered members keep up to date at least informally and that they consider their learning and development needs prior to returning so they are ready to competent to return to work when able to do so.
- Registered members who feel that they may have difficulty in meeting the requirements should contact the Societies (SUT-MTS) as soon as possible.

Application Fields

Applications must be submitted online. Below is information you will need to gather in advance of application online. The application includes the following components:

- Completed online application form
- <u>Referee Form</u> (PDF)
- <u>Professional Development Report</u> (PDF)
- Your CV or resume
- Photocopies of your academic certificates initialed by your referee
- Registration fee

You must be a member of SUT or MTS to apply.

ACADEMIC QUALIFICATIONS (THIS SECTION MUST BE COMPLETED – 'please see CV' will NOT be accepted)

Your qualifications can help you to demonstrate evidence of your knowledge. You must submit authenticated copies (i.e. initialed by your referee as true copies of the originals) of your qualification certificates with your application form.

Start & Finish Dates	Establishment (e.g., University Chicago)	Degree/Diploma/Certificate (e.g., Meng (Hons) Marine Engineering)	Initials of Referee

SUMMARY OF CAREER PROGRESSION (THIS SECTION MUST BE COMPLETED – 'please see CV' will NOT be accepted) Please include details of your current or most recent job role and attach your Professional Development Report and a plan of CPD activities identifying the key responsibilities and accountabilities you have had during your career to date.

Dates	Current / most recent job role	Initials of Referee

GENERAL AREAS OF PRACTICE (Please check as appropriate)

- □ Fleet Manager
- □ Hydrographer
- □ Marine Superintendent (deck)
- □ Meteorologist
- 🗆 Pilot
- □ Marine Logistician
- □ Deck Officer & Ratings
- □ Marine Surveyor
- □ Shipping Professional
- □ Harbormaster
- □ University Faculty
- □ Navigator
- □ Radar/Sonar Maintenance Expert
- □ Warfare Officers and Ratings
- □ Naval Officers and Ratings
- □ Instrumentation and Platform Design/Development
- \Box Other

DECLARATION

I hereby confirm that the statements made in this application are, to the best of my knowledge and belief, correct. I agree to abide by the SUT Code of Professional Conduct (please see our website for details), to maintain my Continuing Professional Development, and to uphold the values and principles of SUT.

I verify that I have at least five (5) years of professional experience in the registration category for which I am applying.

(TYPED SIGNATURE)

ATTACHMENTS

You will upload and attach the following:

- <u>Referee Form</u> (PDF)
- <u>Professional Development Form (PDF)</u>
- Your CV or resume
- Photocopies of your academic certificates initialed by your referee

SUT

The SUT code of conduct is available online here: SUT Ethical Standards for Members

MTS

The MTS Member Conduct Policy is available online here: MTS Policy 3200: Member Conduct Policy

The MTS Conflict of Interest Policy is available online here: MTS Conflict of Interest Policy

Appendix 2: Sample Professional Development Report

(example)

Firstname Lastname – Date

PROFESSIONAL DEVELOPMENT REPORT TEMPLATES ARE AVAILABLE ONLINE

This sample report is based on the requirements of the CMarTech Registration. Please use the appropriate Registry Competencies for the Registry for which you are applying to develop your Professional Development Report.

Personal Details

Name: F. M. Lastname Address: 123 Example Street Washington, DC 20004 Email: <u>f.m.lastname@email.com</u> Mobile Phone: 202-123-4567

Academic Qualifications

MSc Marine Engineering/Science/Technology, University, 20xx-20xx CEng accredited degree – ACAD reference 1000 BEng (Hons) Marine Engineering/Science/Technology, University, 20xx-20xx CEng accredited degree – ACAD reference 1001

Career Overview – Positions Held

Current Position and Duties: Marine Engineer/Scientist/Technologist Company: 20xx to present

Previous Positions and Duties: Marine Engineer/Scientist/Technologist Company: 20xxx to 20xx

Marine Engineer/Scientist/Technologist Company: 20xxx to 20xx

Career Overview – Introduction

More than x years of working in Marine Engineering/Science/Technology, primarily focused on x. My career has recently taken me in to the x sector, having primarily been focused on the x sector.

Educated to Masters/Bachelors/HND level, with extensive management experience.

This report is written as part of my application to apply for registration as a Chartered Marine Technologist with the Marine Technology Society. The report will attempt to demonstrate technical and leadership skills and responsibilities in line with the requirements set out in the MTS Competencies.

The academic requirement for CMarTech registration is satisfied by possession of a (qualification and accreditation status).

(please note that from this point onwards the exemplar report is tailored to an applicant for CEng registration)

The CMarTech competencies are listed as follows, matched to relevant evidence from throughout my career.

A1

On completion of my Master's degree (specializing in finite element (FE) computer analysis) I joined a subsea engineering company. After learning the initial basis pipeline calculations I soon started taking part in small lateral buckling studies. I initially began by examining various papers and formulae which allowed me to develop a simple but effective buckle onset worksheet. I then progressed into performing FE analysis of sections of pipeline. The initial work was fairly theoretical however soon progressed into aiding a client whose pipeline had buckled and wanted to know if these buckles were catastrophic to the pipeline or not. I was able to prove that they were not catastrophic as well as showing that they would aid in limiting future buckles.

Recently I took part in a large design project which produced new problems, as I had to find ways to limit the pipeline from buckling due to temperature. This was performed using various methods however the outcome for the client had to be the "best" solution from a cost, installation and operational point of view. On completion of this work I then started to examine the effects of lateral buckling due to external pressure and seismic faults due to the pipeline lying in 2000m water and crossing between two continents. Having completed this I am currently looking at extending my knowledge from lateral buckling into upheaval buckling.

A2

As part of a team working for a gas company, my role was to research the current state of the offshore oil and gas industry with respect to High Temperature High Pressure (HTHP) projects. On completion of this I presented my results to BG who asked for my assistance with examining the technology and infrastructure limitations as well as taking part in BG internal workshops. The outcome of these workshops was to aid BG with its cost estimation and understanding of all aspects of HTHP fields and how feasible their portfolio of HTHP fields was and areas where possible research, investment and development may further the extremes.

Β1

While providing offshore support for a state-owned natural gas company, who were in the process of taking over a recently installed pipeline that required span rectification work, I highlighted that their proposed solution would only work for a short time and that a better solution would be to rock dump exposed sections of the pipeline. I presented to them a detailed review of how scour can affect pipelines and gave them examples of this that we had witnessed while performing the span rectification work. I was then asked to prepare CTR's outlining a proposed work scope for designing the rock berms, preparing the ITT package and installation supervision for the clients.

B2

A company introduced a new cathodic protection code. I initially prepared a CTR outlining the process, this was approved and I then (with the help of others) created a piece of software that would perform the analysis for us. The software was reviewed in house and externally by the company themselves who approved our design methodology.

Β3

The software has successfully been used on a project and the resulting anodes are now installed subsea in an African country. I was present at the installation of the pipeline and anodes and have since recommended a small warning/upgrade to the software due to my in the field experiences.

C1

I am currently the lead engineer for a deep-water tie back from 4 wells to the shore based in the Mediterranean. With a small budget and not many personnel available, I am having to make the most of my available resources and motivate the team to keep on top of the schedule. I have also tried to find out how the engineers would like to further their knowledge and have encouraged them to take an active role within that area on the project thus expanding everyone's knowledge of the project and pipeline design.

C2

Recently I have been responsible for creating the budget, man hours and schedule for a small project in a Middle Eastern country to review the available survey data and then design the required mitigation measures to prevent further scouring of a pipeline and to provide additional protection. The proposed solution is to rock dump the pipeline, and the scope included the design for the rock, the bid preparation, the bid evaluation and tender process as well as offshore support during the construction phase.

C3

As the lead pipeline engineer on a major pipeline project I was responsible for a team of 6 engineers covering all aspects of offshore pipeline design. The project was particularly challenging as the first 10km had to be constructed of stainless steel due to a high inlet temperature and very corrosive contents. The high inlet temperature also caused severe buckling problems and required some innovative solutions.

C4

As manager of the in-house software development I regularly have to put together work scopes for people to create or update our in-house software, as well as review and manage our technical needs. I encourage people to pass on their knowledge to the other team members, both by producing manuals of our software which other people can use as well as encouraging one-one knowledge sharing where projects allow. I am also persuading people to perform "lunch and learns" where people give presentations about their experiences or about something new they have learnt. I have also taken on the role of helping our HR department as the IMarEST Champion, trying to first motivate myself to become chartered and then help establish a system for helping and encouraging others to do the same.

D1

While at a Subsea Engineering Company I was part of a small team of personnel who helped some non-native English-speaking clients who had recently purchase some software. I provided individual and group training for 6 of their engineers on a finite element program which designed offshore risers and spool pieces. I was required to communicate at a very high technical level while struggling with the language barrier. I also provided them with support for the following 6months while they learnt how to use the software.

D2

I have been part of proposal teams who have been bidding for work with clients who have requested to see our engineering capabilities and past project experiences. I have presented numerous presentations on our finite element and technical capabilities.

D3

I was recently the sole client offshore representative for the repair of 3 pipelines which had excessively long spans. The pipelines were originally installed by a contractor for the government and the remedial work had been subcontracted to a firm from another country. With three languages and four nationalities on board, all with different priorities, the working atmosphere was very intense. As sole representative it was my responsibility to make sure that the correct rectification

measures were adopted and that all work was performed in a safe and effective manner, with no short cuts were taken. I was required on numerous occasions to justify my engineering judgement, back it up with knowledge and facts and to insist that the work was completed in the correct manor so that the client was left with a pipeline that could be placed back into operation.

E1

I have been designated as the individual responsible for maintaining and promoting legislative compliance with necessary codes, regulations and standards on several projects. Part of my work was to ensure that the company in question was well-placed to demonstrate compliance with existing standards, and future-proofing for those in development.

E2

As I have gained greater responsibility in the roles mentioned in this report I have been designated as the Health and Safety representative on several projects. This requires me to have a detailed knowledge of HSEQ standards (HASAW 1974, CDM regulations, OHSAS 18001:2007 etc.) for myself and colleagues, ensuring that they have received adequate training in order to work in safe environment.

E3

I am responsible for carrying out environmental impact assessments for pipeline projects. I plan and implement best practice using environmental management systems (ISO 14000).

E4

I record all of my CPD using the IMarEST Echo tool. After attending a conference in Norway I was able to upload a photograph of my attendance ticket through the app on my phone. As such I have a record of my CPD which I am able to demonstrate whenever required. I also read the Marine Professional every month and reflect on what I have read in my Echo CPD log. I feel that reflective analysis on my CPD such as this enables me to develop as an engineer and apply what I have learned in practical situations.

E5

At various points in my career I have been in a position where I advise on the selection of work which is contracted out. As a result, I often receive invitations to corporate events. Because of my responsibilities to ensure impartial contractual award, I never accept gifts or invitations of more than a nominal value. I ensure that the team members under my supervision abide by this ethical guidance.

Professional Development Activities

Professional Membership IMarEST – Affiliate Membership (Membership Number) MTS – Member (Membership Number)

Key Professional Development Courses Technical Development

Subsea Pipeline Installations (Short Course) – Uni. Aberdeen (date) Offshore Pipeline Design (Short Course) – Robert Goron Uni. (date) Corrosion Engineering and Control – Uni. Aberdeen (date) Mechanical Fatigue and Stress Analysis (Short course) – Texas A&M Uni. (date)

Safety and Risk Assessment

Offshore Safety Induction – Internal Course (date) Understanding Process Hazards Analysis (HAZOP, FMEA, etc.) – Internal Course (date)

Management and Leadership

Introduction to Project Management – Internal Course (date) Key Performance Planning – Internal Course (date) Pipeline Legislation Awareness – Robert Gordon Uni. (date) Lead Auditor/ISO9000 Training (date)

Conferences

I have contributed lectures at international conferences, most recently a lecture on pipeline repair systems at OTC Houston (date)

Selected Recent Published Papers

Lastname, F. M., 'Advanced Finite Element Analysis in Deepwater Pipeline Installation', Deep Offshore Technology Conference (date) Prepared by Tom Fanthorpe, Version 1.0, April 17th 2018

Appendix 3: Career Appraisal Route

In the event a Candidate submits an application indicating they wish to apply for a Registration via the Career Appraisal route, e.g., a candidate without a Master's Degree applies for CMarTech, a candidate without a Bachelor's Degree applies for RMarTech, or a Candidate applies for MarTech without an approved Associate-level or Vocational credential, the following guidance shall apply. The Education Equivalency Panel shall review the Candidate's application per the guidance below.

General Guidance Notes for Career Appraisal Applicants

- The aim of the Career Appraisal route is to demonstrate the subject-specific knowledge and understanding that the applicant has achieved.
- The Career Appraisal Document should identify 3 discipline-specific examples drawn from the Candidate's career for each descriptor. The examples should be varied and should focus on what was learned or achieved.
- The Career Appraisal Document shall serve as a stand-alone document and needs to reflect the learning of the relevant syllabus (Masters, Bachelors, Vocational).
- The Career Appraisal Document needs to reflect the career of the Candidate and needs to draw on examples from the Candidate's discipline.
- The Career Appraisal Document should encompass what the individual has learned from the experience and learning should be related back to the appropriate descriptor.
- Examples where candidates have either had to deal with projects outside their previous area of expertise or where things have gone wrong tend to provide good experiences for the Career Appraisal application.

Evaluation Standards

CMarTech

Experiential learning must be equivalent to the Masters Level. This includes a broad understanding of specialist knowledge, career initiative, and leadership experience.

RMarTech

Experiential learning must be equivalent to the Bachelors Level. This includes understanding of specialist knowledge and some leadership or management experience.

MarTech

Experiential learning must be equivalent to one of the following:

- An approved National Certificate (UK), Certificate (US), National Diploma (UK), or Diploma (US)
- An approved qualification at level 6 in the Scottish Qualifications and Credit Framework
- A City & Guilds Higher Professional Diploma (UK)
- A technical certificate as part of an Advanced Apprenticeship Program
- An NVQ3 or SVQ3, which has been approved for the purpose by the IMarEST
- A work-based learning route approved by the IMarEST
- Qualifications in similar areas providing they are assessed as equivalent by SUT or MTS.

Career Appraisal Route – Candidate Form

Candidate Name	е

Category of professional registration being sought

□ CMarTech □ RMarTech

h 🛛 MarTech

Referee Declaration: The evidence described in this document is a true record of the academic competence that has been demonstrated by this candidate.

Referee Name			
I know this candidate in my capacity as his / her / their	□ Mentor	□ Sponsor	□ Line Manager
	🗆 Other (plea	se specify)	
Signed:	Date		

With reference to your area of professional practice, please demonstrate the following (you may attach add'l pages):

1.	Your areas of underpinning knowledge and how they have been developed: Include details of technical development from academic and industrial training and experience.	Sponsor's Initials
2.	How you deal with complex issues, both systematically and creatively; make sound judgments in the absence of complex data and communicate your conclusions clearly to specialist and non-specialist audiences.	

3.	Self-direction and originality in tackling and solving problems, and the ability to act autonomously in planning and implementing tasks at a professional or equivalent level.	
4.	How you intend to continue to advance your knowledge and understanding, and to develop new skills to a high level.	
5.	The qualities and transferable skills necessary for employment requiring: the exercise of initiative	
	and personal responsibility; decision-making in complex and unpredictable situations, the independent learning ability required for continuing professional development	

<u>Please be sure both you and your sponsor have signed the declaration of evidence on the front page, and that your sponsor has initialed each section of the form. The completed form should be submitted with your application.</u>



Society for Underwater Technology

2 John Street London WC1N 2ES England <u>www.sut.org</u>



Marine Technology Society

1100 H St., NW, Ste. LL-100 Washington, DC 20005 United States www.mtsociety.org

Comparison of Marine Technologist Registry Standards

MarTech		RMarTech		CMarTech		
The Competence and Commitment Standards for Marine Technicians. Marine Technicians must be competent throughout their working life, by virtue of their education, training and experience, to:	Guidance – These are examples of activities which could demonstrate that you have achieved the MarTech criteria.	The Competence and Commitment Standard for Registered Marine Technologists. Registered Marine Technologists must be competent throughout their working life, by virtue of their education, training and experience, to:	Guidance – These are examples of activities which could demonstrate that you have achieved the RMarTech criteria.	The Competence and Commitment Standard for Chartered Marine Technologists. Chartered Marine Technologists must be competent throughout their working life, by virtue of their education, training and experience, to:	Guidance – These are examples of activities which could demonstrate that you have achieved the CMarTech criteria.	

<u>A</u> Use appropriate knowledge and understanding to apply technical and practical skills. This includes the ability to:	The reviewers will be looking for evidence that you have the know-how to do the job, and were able to go beyond the immediate requirements and use your initiative and experience to solve a problem or improve a process.	<u>A</u> Use a combination of general and specialist knowledge and understanding to apply existing and emerging technology.		<u>A</u> Use a combination of general and specialist knowledge and understanding to optimize the application of existing and emerging technology.	
A1 review and select appropriate techniques, procedures and methods to undertake tasks	Describe something in your work you were involved in which didn't quite work and explain why.	A1 Maintain and extend a sound theoretical approach to the application of technology in practice. This could include an ability to:	Engage in formal learning. Learn new theories and techniques in the workplace, at seminars, etc. Broaden your knowledge of relevant codes, standards and specifications.	A1 Maintain and extend a sound theoretical approach in enabling the introduction and exploitation of new and advancing technology and other relevant developments. This could include an ability to:	Engage in formal post- graduate academic study. Learn and develop new relevant theories and techniques in the workplace. Broaden your knowledge of appropriate codes, standards and specifications.
		 Identify the limits of own personal knowledge and skills Strive to extend own technological capability Broaden and deepen own knowledge base through new applications and 		 Identify the limits of own personal knowledge and skills Strive to extend own technological capability Broaden and deepen own knowledge base through research and experimentation. 	

A2 use appropriate principles.	Drawing from your direct experience, this might be an explanation of how a piece of equipment, system or mechanism works.	A2 Use a sound evidence-based approach to problem- solving and contribute to continuous improvement. This could include an ability to:	Manage/contribute to market research, and product and process research and development. Involvement with cross- disciplinary working. Conduct statistically sound appraisal of data. Use evidence from best practice to improve effectiveness. Apply root	ai di p ai in T	A2 Engage in the creative and innovative development of systems, processes and products and continuous mprovement systems. This could include an ability to:	Lead/manage market research, and product and process research and development. Cross- disciplinary working involving complex projects. Conduct statistically sound appraisal of data. Use evidence from best practice to improve effectiveness.
		• Establish users' requirements for improvement	cause analysis.	•	 Establish users' needs 	
		• Use market intelligence and knowledge of technological developments to promote and improve the effectiveness of products, systems and services		n rr lc e: th tr	 Assess marketing needs and contribute to marketing strategies; dentify constraints and exploit opportunities for the development and transfer of technology within own chosen field 	
		• Contribute to the evaluation and development of continuous improvement systems		a	 Promote new applications when appropriate 	
		• Apply knowledge and experience to investigate and solve problems arising during tasks and implement corrective action.		ir	 Secure the necessary ntellectual property ights 	
				C	 Develop and evaluate continuous improvement systems. 	

B Contribute to the design, development, manufacture, construction, commissioning, operation or maintenance of products, equipment, processes, systems or services.	Explain how you contribute to one or more of these activities.	B Apply appropriate theoretical and practical methods to design, develop, manufacture, construct, commission, operate, maintain, decommission and re- cycle processes, systems, services and products.		B Apply appropriate theoretical and practical methods to the analysis and solution of problems.	
B1 identify problems and apply diagnostic methods to identify causes and achieve satisfactory solutions	Show an example of how you have used measurement, monitoring and assessment to identify the source of a problem or to identify an opportunity.	B1 Identify, review and select techniques, procedures and methods to undertake tasks. This could include an ability to:	Contribute to the marketing of and tendering for new products, processes and systems. Contribute to the specification and procurement of new products, processes and	B1 Identify potential projects and opportunities. This could include an ability to:	Involvement in the marketing of and tendering for new products, processes and systems. Involvement in the specification and procurement of new products, processes and
		 Select a review methodology Review the potential for enhancing products, processes, systems and services, using evidence from best practice 	systems. Develop decommissioning processes. Set targets, and draft programs and action plans. Schedule activities.	 Explore the territory within own responsibility for new opportunities Review the potential for enhancing products, processes, systems and services 	systems. Set targets, and draft programs and action plans. Schedule activities.
		 Establish an action plan to implement the results of the review. 		• Use own knowledge of the employer's position to assess the viability of opportunities.	

B2 identify, organize and use resources effectively to complete tasks, with consideration for cost, quality, safety and environmental impact.	Illustrate how you make decisions about what material, component, people or plant to use or how to introduce a new method of working.	B2 Contribute to the design and development of solutions. This could include an ability to: • Contribute to the identification and specification of design and development requirements for products, processes, systems and services • Identify potential operational problems and evaluate possible solutions, taking account of cost, quality, safety, reliability, appearance, fitness for purpose and environmental impact • Contribute to the design of solutions.	Contribute to theoretical and applied research. Manage/contribute to value and whole life costing. Work in design teams. Draft specifications. Develop and test options. Identify resources and costs of options. Produce detailed designs.	 B2 Conduct appropriate research, and undertake design and development of solutions. This could include an ability to: Identify and agree appropriate research methodologies Assemble the necessary resources Carry out the necessary resources Collect, analyze and evaluate the relevant data Undertake design. Draft, present and agree design recommendations, taking account of cost, quality, safety, reliability, appearance, fitness for purpose and environmental impact 	Carry out formal theoretical research. Carry out applied research on the job. Lead/manage value and whole life costing. Lead design teams. Draft specifications. Develop and test options. Identify resources and costs of options. Produce concept designs, and develop these into detailed designs.

B3 Implement design	Follow the design	B3 Implement design	Follow the design process
solutions and	process through into	solutions, and evaluate	through into product or
contribute to their	product manufacture.	their effectiveness. This	service realization and its
evaluation. This could	Operate and maintain	could include an ability to:	evaluation. Prepare and
include an ability to:	processes, systems etc.		present reports on the evaluation of the
	Contribute to reports on the evaluation of the		effectiveness of the
Secure the	effectiveness of the	• Ensure that the	designs. Manage product
resources required	designs. Contribute to	application of the design	improvement. Interpret
for implementation	product improvement.	results in the appropriate	and analyze performance.
	Interpret and analyze	practical outcome	Determine critical success
	performance. Contribute		factors.
	to determining critical		
 Implement design 	success factors.	 Implement design 	
solutions, taking		solutions, taking account	
account of critical		of critical constraints	
constraints			
Identify problems		Determine the criteria	
during		for evaluating the design	
implementation and		solutions	
take corrective action			
Contribute to the		Evaluate the outcome	
evaluation of design solutions		against the original	
solutions		specification	
Contribute to		 Actively learn from 	
recommendations for		feedback on results to	
improvement and		improve future design	
actively learn from		solutions and build best	
feedback on results.		practice.	

C Accept and exercise personal responsibility.	Describe an experience or instance where you have had to accept personal responsibility for seeing a process through to completion within agreed targets.	C Provide technical and commercial management.		C Provide technical and commercial leadership.	
C1 work reliably and effectively without close supervision, to the appropriate codes of practice	Your evidence should show how you personally identified and agreed with what had to be done and to what standards on a typical project.	 C1 Plan for effective project implementation. This could include an ability to: Identify the factors affecting the project implementation Prepare and agree implementation plans and method statements Secure the necessary resources and confirm roles in project team Apply the necessary contractual arrangements with other stakeholders (client, subcontractors, suppliers, etc.). 	Manage/contribute to project planning activities. Produce and implement procurement plans. Contribute to project risk assessments. Collaborate with key stakeholders. Plan programs and delivery of tasks. Identify resources and costs. Prepare and agree contracts/work orders.	C1 Plan for effective project implementation. This could include an ability to: Identify the factors affecting the project implementation Lead on preparing and agreeing implementation plans and method statements Ensure that the necessary resources are secured and brief the project team Negotiate the necessary contractual arrangements with other stakeholders (client, subcontractors, suppliers, etc.).	Lead/manage project planning activities. Produce and implement procurement plans. Carry out project risk assessments. Collaborate with key stakeholders, and negotiate agreement to the plans. Plan programs and delivery of tasks. Identify resources and costs. Negotiate and agree contracts/work orders.

C2 accept responsibility for work of self and others	Minutes of meetings; site notes and instructions; Variation Orders; programs of work; specifications, drawing and reports; appraisals. Activity not associated with your job can contribute evidence.	C2 Manage the planning, budgeting and organization of tasks, people and resources. This could include an ability to: • Operate appropriate management systems • Work to the agreed quality standards, program and budget, within legal and statutory requirements	Manage/contribute to project operations. Manage the balance between quality, cost and time. Manage contingency processes. Contribute to the management of project funding, payments and recovery. Satisfy legal and statutory obligations. Manage tasks within identified financial, commercial and regulatory constraints.	 C2 Plan, budget, organize, direct and control tasks, people and resources. This could include an ability to: Set up appropriate management systems Agree quality standards, program and budget within legal and statutory requirements 	Take responsibility for and control project operations. Manage the balance between quality, cost and time. Manage contingency systems. Manage project funding, payments and recovery. Satisfy legal and statutory obligations. Lead/manage tasks within identified financial, commercial and regulatory constraints.
		 Manage work teams, coordinating project activities 		 Organize and lead work teams, coordinating project activities 	
		• Identify variations from quality standards, program and budgets, and take corrective action		• Ensure that variations from quality standards, program and budgets are identified, and that corrective action is taken	
		• Evaluate performance and recommend improvements.		 Gather and evaluate feedback, and recommend improvements. 	

C3 accept, allocate and supervise technical and other tasks.	Minutes of meetings; site notes and instructions; Variation Orders; programs of work; specifications, drawing and reports; appraisals. Activity not associated with your job can contribute evidence.	C3 Manage teams and develop staff to meet changing technical and managerial needs. This could include an ability to: • Agree objectives and work plans with teams and individuals • Identify team and individual needs, and plan for their development • Manage and	Carry out/contribute to staff appraisals. Plan/contribute to the training and development of staff. Gather evidence from colleagues of the management, assessment and feedback that you have provided. Carry out/contribute to disciplinary procedures.	C3 Lead teams and develop staff to meet changing technical and managerial needs. This could include an ability to: • Agree objectives and work plans with teams and individuals • Identify team and individual needs, and plan for their development • Lead and support	Carry out/contribute to staff appraisals. Plan/contribute to the training and development of staff. Gather evidence from colleagues of the management, assessment and feedback that you have provided. Carry out/contribute to disciplinary procedures.
		 Manage and support team and individual development Assess team and individual performance, and provide feedback. 		 Lead and support team and individual development Assess team and individual performance, and provide feedback. 	

C4 Manage continuous	Promote quality.	C4 Bring about	Plan and implement best
quality improvement.	Manage/contribute to	continuous improvement	practice methods of
This could include an	best practice methods of	through quality	continuous improvement,
ability to:	continuous	management. This could	e.g. ISO 9000, EFQM,
	improvement, e.g. ISO	include an ability to:	balanced scorecard. Carry
	9000, EFQM, balanced		out quality audits. Monitor,
	scorecard. Carry		maintain and improve
Ensure the	out/contribute to quality	 Promote quality 	delivery. Identify,
application of quality	audits. Monitor,	throughout the	implement and evaluate
management	maintain and improve	organization and its	changes to meet quality
principles by team	delivery. Identify,	customer and supplier	objectives.
members and	implement and evaluate	networks	
colleagues	changes to meet quality		
	objectives.		
Manage operations		Develop and maintain	
to maintain quality		operations to meet	
standards		quality standards	
. Evelvete verteete		Discut and is at	
Evaluate projects		Direct project	
and make		evaluation and propose	
recommendations for		recommendations for	
improvement.		improvement.	

D Use effective communication and interpersonal skills.	You will need to show you can: contribute to discussions; make a presentation; read and synthesize information; write different types of documents.	D Demonstrate effective interpersonal skills.		D Demonstrate effective interpersonal skills.	
D1 use oral, written and electronic methods for the communication in English of technical and other information	Letters, reports, drawings, advice, minutes, including progress meetings, appraisals, work instructions, and other task planning and organizing documents certificated by colleagues, clients, customers or management. Your application itself will be relevant.	D1 Communicate in English with others at all levels. This could include an ability to:	Reports, minutes of meetings, letters, programs, drawings, specifications.	D1 Communicate in English with others at all levels. This could include an ability to:	Reports, minutes of meetings, letters, programs, drawings, specifications.
		 Contribute to, chair and record meetings and discussions Prepare letters, documents and reports on technical matters Exchange information and provide advice to technical and non- technical colleagues. 		 Contribute to, chair and record meetings and discussions Prepare letters, documents and reports on complex matters Exchange information and provide advice to technical and non- technical colleagues. 	

D2 work effectively with colleagues, clients, suppliers and the public.	Examples of how this has occurred, and your role at the time.	D2 Present and discuss proposals. This could include an ability to:	Presentations, records of discussions and their outcomes.	D2 Present and discuss proposals. This could include an ability to:	Presentations, records of discussions and their outcomes.
		 Prepare and deliver appropriate presentations Manage debates 		 Prepare and deliver presentations on strategic matters Lead and sustain 	
		Feed the results		 Feed the results back 	
		back to improve the proposals.		to improve the proposals.	
		D3 Demonstrate personal and social skills. This could include an ability to: • Know and manage	Records of meetings. Evidence from colleagues of your personal and social skills. Contribute to productive working relationships.	 D3 Demonstrate personal and social skills. This could include an ability to: Know and manage 	Records of meetings. Evidence from colleagues of your personal and social skills. Take responsibility for productive working relationships. Apply
		 own emotions, strengths and weaknesses Be aware of the 	Apply diversity and anti- discrimination legislation.	own emotions, strengths and weaknessesBe aware of the needs	diversity and anti- discrimination legislation.
		needs and concerns of others • Be confident and		and concerns of othersBe confident and	
		flexible in dealing with new and changing interpersonal situations		flexible in dealing with new and changing interpersonal situations	
		Identify, agree and work towards collective goals		Identify, agree and lead work towards collective goals	
		• Create, maintain and enhance productive working relationships, and resolve conflicts.		• Create, maintain and enhance productive working relationships, and resolve conflicts.	

E Make a personal commitment to an appropriate code of professional conduct, recognizing obligations to society, the profession and the environment. In order to satisfy this commitment, they must:	Your commitment will be to become part of the profession and uphold the standards to which all members subscribe. You need to show that you have read and understood the relevant Code of Conduct.	E Demonstrate a personal commitment to professional standards, recognizing obligations to society, the profession and the environment.		E Demonstrate a personal commitment to professional standards, recognizing obligations to society, the profession and the environment.	
E1 Comply with the relevant Code of Conduct	You will need to sign a personal undertaking. The professional review involves demonstration of, or discussion of, your position on typical ethical challenges.	E1 Comply with relevant codes of conduct. This could include an ability to:	Contribute to the affairs of MTS and/or SUT. Work with a variety of conditions of contract.	E1 Comply with relevant codes of conduct. This could include an ability to:	Work with a variety of conditions of contract. Demonstrate initiative in and commitment to the affairs of MTS and/or SUT.
		 Comply with the relevant rules of professional conduct of own professional body Manage work 		 Comply with the rules of professional conduct of MTS and/or SUT Lead work within all 	
		within all relevant legislation and regulatory frameworks, including social and employment legislation.		relevant legislation and regulatory frameworks, including social and employment legislation.	

E2 manage and apply safe systems of work	Evidence of applying current safety requirements, such as examples of good practice you adopt in your work. You will need to show that you have received a formal safety instruction relating to your workplace, such as a CSCS safety test, or an update on statutory regulations such as COSHH requirements.	E2 Manage and apply safe systems of work. This could include an ability to:	Undertake formal H&S training. Work with H&S legislation and best practice, e.g. HASAW 1974, CDM regs, OHSAS 18001:2007 and company safety policies. Carry out safety audits. Identify and minimize hazards. Assess and control risks. Deliver H&S briefings & inductions.	E2 Manage and apply safe systems of work. This could include an ability to:	Undertake formal H&S training. Work with H&S legislation and best practice, e.g. HASAW 1974, CDM regs, OHSAS 18001:2007 and company safety policies. Carry out safety audits. Identify and minimize hazards. Assess and control risks. Evaluate the costs and benefits of safe working. Deliver strategic H&S briefings and inductions.
		 Identify and take responsibility for own obligations for health, safety and welfare issues Manage systems that satisfy health, safety and welfare requirements Develop and implement appropriate hazard identification and risk management systems Manage, evaluate and improve these systems. 		 Identify and take responsibility for own obligations for health, safety and welfare issues Ensure that systems satisfy health, safety and welfare requirements Develop and implement appropriate hazard identification and risk management systems Manage, evaluate and improve these systems. 	

E3 undertake work in a way that contributes to sustainable development	Examples of methodical assessment of risk in specific projects; actions taken to minimize risk to health, safety, society or the environment.	 E3 Undertake activities in a way that contributes to sustainable development. This could include an ability to: Operate and act responsibly, taking account of the need to progress environmental, social and economic outcomes simultaneously Provide products and services which maintain and enhance the quality of the environment and community, and meet financial objectives 	Carry out/contribute to environmental impact assessments. Carry out/contribute to environmental risk assessments. Manage best practice environmental management systems, e.g. ISO 14000. Work within environmental legislation. Adopt sustainable practices. Contribute to "triple bottom line" (i.e. social, economic and environmental) outcomes.	 E3 Undertake activities in a way that contributes to sustainable development. This could include an ability to: Operate and act responsibly, taking account of the need to progress environmental, social and economic outcomes simultaneously Use imagination, creativity and innovation to provide products and services which maintain and enhance the quality of the environment and community, and meet financial objectives 	Carry out environmental impact assessments. Carry out environmental risk assessments. Plan and implement best practice environmental management systems, e.g. ISO 14000. Work within environmental legislation. Adopt sustainable practices. Achieve "triple bottom line" (i.e. social, economic and environmental) outcomes.
		• Understand and encourage stakeholder involvement in sustainable development.		• Understand and secure stakeholder involvement in sustainable development.	

E4 carry out continuing professional development, including opportunities for this offered by MTS and/or SUT, to ensure competence in areas and at the level of future intended practice.	This means demonstrating that you have actively sought to keep yourself up to date, perhaps by studying new standards or techniques, or made use of magazines, Branch meetings and other opportunities to network in order to keep abreast of change.	E4 Carry out continuing professional development necessary to maintain and enhance competence in own area of practice. This could include an ability to:	Keep up to date with relevant national and international issues. Maintain CPD plans and records. Involvement with the affairs of MTS and/or SUT. Evidence of your development through on-the-job learning, private study, in- house courses, external courses and conferences.	E4 Carry out continuing professional development necessary to maintain and enhance competence in own area of practice. This could include an ability to:	Keep up to date with relevant national and international issues. Maintain CPD plans and records. Involvement with the affairs of MTS and/or SUT. Evidence of your development through on- the-job learning, private study, in- house courses, external courses and conferences.
		 Undertake reviews of own development needs Prepare action plans to meet personal and organizational objectives Carry out planned (and unplanned) CPD activities 		 Undertake reviews of own development needs Prepare action plans to meet personal and organizational objectives Carry out planned (and unplanned) CPD activities 	
		 Maintain evidence of competence development Evaluate CPD outcomes against the action plans Assist others with their own CPD. 		 Maintain evidence of competence development Evaluate CPD outcomes against the action plans Assist others with their own CPD. 	