

Competency	Essex Graduate	Skill	Skill Level	Evidence (MSc Computer Science Programme as a Whole)	Evidence (RMPP Module)
Professional	Literacy, Communication, Language Skills	Express information effectively to technical and non-technical audiences	Proficient	Through report writing in various modules and presentations (SEPM, SSD, RMPP), as well as team projects and Collaborative Discussions, I have developed structured arguments. The presentation in SEPM especially refined my skill to convey information to non-technical audiences.	Through the two Collaborative Discussions (Codes of Ethics, Whizz cereal) and reflective tasks (e.g. Literature Review, Research Proposal Presentation), I have communicated ideas using structured, well-supported arguments. The depth of content in assignments demonstrates clear reasoning on complex issues, such as in the Literature Review Assignment.
		Create documents to aid your communication (reports, diagrams, legal descriptions, plans, manuals and charts)	Proficient	Across different modules, I have strengthened my reporting skills by integrating text with UML diagrams, Gantt charts, and other visuals. This has also benefitted my professional career, where formal documentation is vital.	Assignments (e.g. Literature Review, Research Proposal) and e-Portfolio artefacts show my ability to structure formal documents and incorporate visuals (charts, process flows). The systematic layout of the SWOT and Action Plan tables further highlights effective documentation abilities.
	Commercial Awareness	Keep current with tools of the industry, as well as emerging technology	Trained	Throughout the MSc journey, I have researched and experimented with different Integrated development environment (IDE), scanning tools in the Network Security module, and learned to add subtitles to presentation videos in SEPM.	Familiarity with Power BI and Excel for data analysis (statistical worksheets in Units 7–10) demonstrates an up-to-date skill set. I also employed new tools (e.g. adding subtitles to recorded presentations), indicating adaptability in using emerging technologies.
		Seek opportunities to improve and share knowledge of tools and technology that may improve productivity	Trained	During the MSc in Computer Science, I have exchanged knowledge on various tools with peers, especially in SEPM and SSD modules. I improved my proficiency in project management tools like Trello, and explored various IDEs for coding in OOP and SSD modules, sharing tips in group discussions.	In RMPP, I contributed by correcting workshop spreadsheets and demonstrating to my peers how to activate the Data Analysis ToolPak in Excel. I also shared insights on adding subtitles to presentation videos, while my peers provided feedback on resolving technical issues (e.g., JavaScript errors on UoE web pages).
		Participate in scientific and professional organisations	Trained	I participate in Hong Kong's Data Protection Officers' Club (DPOC) and AI Working Group of the German Chamber of Commerce in Hong Kong (AIWG) to stay updated on compliance developments and innovations.	
		Emphasise quality, customer satisfaction and fair application of policies.	Proficient	I demonstrated an understanding of these principles in SEPM by focusing on user requirements and refining the project accordingly.	In my research proposal, I aim to understand the common vulnerabilities and limitations of Small and medium-sized enterprises (SMEs) regarding data breach risks, and I plan to design a toolkit to meet their needs.
	Subject understanding, research, critical thinking, time management	Demonstrate familiarity with codes of conduct for the Computing field.	Proficient		Collaborative Discussions exploring Association for Computing Machinery (ACM), British Computer Society (BCS), General Data Protection Regulation (GDPR), and The Personal Data (Privacy) Ordinance (PDPO) indicated a strong grounding in ethical guidelines. My reflective writing (e.g. Privacy Case Study) showcased an understanding of legal frameworks relevant to both research and professional practice.
		Critically analyse complex ideas in concepts in the field of Computer Science	Proficient		The Literature Review demonstrated a well-structured approach to thematic research. Tutor feedback praised the critical depth but recommended additional pros-and-cons discourse in paragraphs. A positive grade reflected a solid capacity to handle complex cybercrime topics (Ransomware in Hong Kong) with suitable analysis.
		Recognise inconsistencies and gaps in information, and search for additional information when needed...	Proficient		Tutor feedback on my Literature Review highlighted excellent use of relevant resources and effective cross-sectional research, confirming sound information-gathering skills.
		Explore complex real-world problems in a Computing context	Proficient		The second Collaborative Discussion on balancing ethical and commercial interests (the Whizz cereal scenario) prompted reflections on employing strategies such as independent auditing, consulting domain experts, and upholding professional guidelines. These insights have broadened my approach to resolving real-world problems within a computing context.

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Legal and Ethical	Ethical Awareness	Comply with the letter and spirit of applicable laws	Proficient	As a Data Protection Officer in my professional life, I am strongly inclined to enhance data security and compliance. The MSc has strengthened my practical knowledge in achieving these goals.	By incorporating GDPR/PDPO considerations in research proposals and case studies, I have shown a comprehensive approach to legal compliance. In my research proposal, my objective is to further practice drafting official policy documents or detailed risk mitigation frameworks, which would deepen my expertise in legal contexts.
		Maintain privacy and confidentiality of company, co-worker and customer information	Proficient		
Social (Inc. Teamwork)	Cultural Awareness	Act in the best interest of the community at large - Social (Community) Responsibility	Proficient		In the first Collaborative Discussion on Abusive Workplace Behaviour and other ethical considerations, I developed a broader perspective on acting in the best interest of the community at large. The collaborative discussion helped highlight the social impact of research outcomes.
	Teamwork, Leadership and Resilience, Time Management	Collaborate effectively in diverse teams to achieve team goals	Proficient	In the SEPM and SSD modules, we held weekly meetings and participated in chat groups to coordinate tasks and share regular progress. This synergy was further strengthened through peer reviews, effectively leveraging each member's strengths.	In RMPP, the primary collaborative activities involved discussion boards. We reached common ground on codes of conduct and best practices during the two case studies.
		Meeting team objectives using teamwork skills	Proficient	In SEPM and SSD modules, the peer review process enhanced teamwork by aligning everyone's contributions toward project goals.	
		Demonstrate skills in leadership and team building	Proficient	In SEPM and SSD modules, I took initiative to review entire project documents before each meeting, merging everyone's contributions and suggesting necessary revisions.	
		Give and receive constructive feedback	Proficient	In SEPM and SSD modules, a structured peer review was adopted, allowing members to exchange insights and learn from each other's strengths.	
	Creativity, Entrepreneurial, Problem solving, Initiative, Decision Making	Create, discuss and deliver strategies for sustainability for all stakeholders (company, community and environment)	Trained		In my Research Proposal, I aim to craft a practical, resource-efficient framework for mitigating data breach risks for SMEs. Noting the rise in breaches among SMEs (due to limited resources or lack of awareness) inspires me to assist in achieving a balance between innovation and data protection.
		Able to make a decision on a complex matter/scenario using multiple sources of information	Trained		Preparing my Literature Review strengthened my ability to gather multiple sources and weigh differing perspectives. In Collaborative Discussions, I referred to various codes of conduct and guidelines to structure informed arguments and decision making.
Technical (Data Science)	IT and Digital, Numeracy	<i>Technical skills relevant to your degree programme:</i> SQL for database querying Python Programming Java Python noSQL Scripting Language (Python) Statistical Language (R)	Trained Trained Trained Trained Trained Trained Trained	LCS Module OOP, ISM, SSD Modules OOP, ISM, SSD Modules OOP, ISM, SSD Modules	
		Gits - repository development and maintenance	Proficient	Maintaining repositories and development across MSc modules.	Continuous updates to artefacts and unit reflections during RMPP encouraged the same practice.
		Use of conferencing technologies and Moodle (VLE)	Proficient	Used throughout the MSc for lectures, seminars, and project collaboration.	Employed during the RMPP module for discussion boards, recording seminars, and attending lectures. Demonstrated proactive approach by troubleshooting and resolving errors in the Inferential Statistics Workshop materials during RMPP (Units 7–10).
		Use of Word Processing tools and Spreadsheets	Expert	Frequent usage for reflection pieces, data analysis, and assignment preparation across the MSc.	
		Effective use of e-library resources	Trained	Primarily accessed recommended module reading lists in conjunction with Google Scholar for extended research.	Applied this approach consistently in RMPP to gather academic resources.

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Subject Application	Global Citizen, Teamwork, Leadership, Emotional Intelligence	Take into account other people's perspectives	Trained		Throughout two Collaborative Discussions, I honed my critical thinking skills by engaging with peers who held contrasting perspectives on ethical dilemmas. Integrating their "pros and cons" led to deeper, more nuanced conclusions. Reflective tasks further encouraged assimilating multiple viewpoints, including feedback from both peers and tutors.
		Work constructively with differences in viewpoints	Trained	Collaborative tasks and group projects across modules have led to an openness to debate and compromise.	In the RMPP Collaborative Discussions, I engaged with peers' differing interpretations, further refining a balanced approach to ethical and research-based issues.
		Actively participate in a range of community activities as an informed citizen	Trained	As a Data Protection Officer, I apply the knowledge and skill sets from the MSc to promote data security and compliance. Participating in groups like the DPOC and AIWG societal impact.	
	Decision Making, Initiative, Emotional Intelligence, Ethical Awareness	Develop, articulate and clarify your personal values and ethics	Proficient		My exploration of ethical dilemmas (e.g., the Whizz cereal case and the Abusive Workplace Behaviour scenario) demonstrates a developing moral stance. Enhanced referencing and cross-sectional research were praised by the tutor, indicating a conscious integration of personal ethics into my research. Discussions in RMPP about data privacy and professional conduct emphasized consistent ethical responsibility and reflection on professional standards.

This is by no means a comprehensive list of Professional skills required for your programme. It is meant to be used as a guide for your SWOT analysis/action plan as part of your Professional Development PDP. As you progress through the course, you will discover other skills you need to develop or currently have. These can be described in further detail in your SWOT analysis/action plan.

As this is required in various modules, you may end up with different versions of this Matrix. You can collate them in your Learning Loop as part of your final PDP at the end of your programme.

Adapted from BCS guidelines and Essex graduate

	<b>Skill Level Key</b>
Aware	General understanding and basic knowledge
Trained	Able to apply knowledge, able to work independently under certain conditions
Proficient	Broad and in-depth knowledge, able to work independently with very little supervision
Expert	Seen as a subject matter expert, able to lead and train others.

	<b>Modules</b>
LCS	Module 1 Launching in Computer Science
OOP	Module 2 Object Oriented Programming
NS	Module 3 Network Security
ISM	Module 4 Information Security Management
SEPM	Module 5 Software Engineering Project Management
SSD	Module 6 Secure Software Development
RMPP	Module 7 Research Methods and Professional Practice