Professional Skills Matrix, SWOT Analysis, and SMART Action Plan

1. **Professional Skills Matrix (Aligned with BCS and Essex Graduate Attributes)**

Category	Key Skills / Attributes	Evidence from Research Methods Module
Research Design and Methodology	Developed understanding of qualitative and quantitative approaches, ethical considerations, and sampling methods.	*Research Proposal Outline (Unit 8)* – defined aims, methodology, and theoretical framework.
Data Analysis and Interpretation	Applied descriptive and inferential statistics to research scenarios using Excel and worksheet activities.	*Units 7–9 Statistical Worksheets* – t-tests, chi-square, and correlation analysis.
Academic Writing and Critical Thinking	Produced a structured literature review and demonstrated the ability to critique academic sources.	*Unit 4 Literature Review Outline* and tutor feedback revision.
Ethics and Professional Conduct	Evaluated ethical responsibilities in computing and research under BCS and ACM codes.	*Unit 1 Reflective Activity: Ethics in Computing* and *Privacy Case Study (Unit 4)*.
Communication and Presentation	Enhanced academic communication through proposal writing, peer reviews, and e-Portfolio submissions.	*Unit 3 Peer Review and Discussion Participation*; *Unit 11 e-Portfolio Preparation*.
Reflection and Self-Development	Strengthened ability to evaluate personal learning through reflective frameworks.	*Unit 11 Reflective Piece using Gibbs Cycle*; *Action Plan development for future growth*.

2. SWOT Analysis

a) Strengths

Area	Description	Evidence from Module
Research Methodology Understanding	Solid grasp of research design, sampling, and mixed-methods approaches.	*Research Proposal and feedback (Units 8–9).*
Statistical Competence (Basic Level)	Ability to apply t-tests, chi-square, and descriptive analysis using Excel worksheets.	*Units 7–9 data analysis exercises.*
Ethical and Professional Awareness	Strong engagement with ethics in computing and GDPR reflections.	*Ethics in Computing reflection (Unit 1); Privacy Case Study (Unit 4).*
Academic Writing and Structuring	Capable of producing well-structured academic documents aligned with Harvard referencing.	*Literature Review and Proposal drafts with feedback integration.*
Reflective Practice	Effective use of Gibbs and Rolfe models to connect learning with personal growth.	*Unit 11 reflective piece and e-Portfolio preparation.*

b) Weaknesses

Area	Description	Impact / Evidence
Limited Experience in Academic Publishing	No prior experience in submitting work for peer-reviewed publication.	Identified during Research Methods reflection.
Intermediate Level Statistical Skills	Confident with Excel but limited exposure to SPSS or R for advanced data handling.	Noted during Unit 9 inferential statistics tasks.
Time Management for Research Activities	Managing proposal writing, analysis, and reflection alongside full-time work proved demanding.	Evident in mid-module workload peaks.

Confidence in Theoretical Framework Application	Initial difficulty linking theories (e.g., CyBOK, NIST) to research design.	Improved after tutor feedback on proposal.

3. **Opportunities**

Area	Description	Potential Benefit
Academic Writing Enhancement	Continue refining literature review and referencing techniques.	Improves clarity and credibility of future dissertation work.
Advanced Statistical Training	Explore SPSS, R, or Python for deeper analytical capability.	Supports future quantitative dissertation analysis.
Research Publication and Presentation	Adapt MSc research into a conference or journal paper.	Builds academic visibility and contribution.
Collaboration and Peer Learning	Continue engaging in research groups or seminars.	Enhances critical reflection and knowledge exchange.

4. **Threats**

Area	Description	Mitigation Strategy
Balancing Professional and Academic Duties	Competing work and study priorities may reduce research focus.	Implement structured weekly research schedule.
Rapid Development in Research Tools	Statistical and AI tools evolve quickly.	Attend regular online workshops and short courses.
Academic Integrity Risks	High dependency on secondary sources could risk over-citation or weak synthesis.	Maintain originality checks via Turnitin; use paraphrasing and critical comparison.

Limited Access to Research Datasets	Restricted access to primary data sources for quantitative analysis.	Utilise open-access datasets and simulated data during dissertation phase.

5. **SMART Action Plan**

Goal	Action Steps	Timeline	Evidence / Expected Outcome
Enhance Academic Writing for Publication	Revise literature review into a publishable research paper with tutor guidance.	**By May 2026**	Submission to an academic conference or journal.
Develop Proficiency in SPSS and R	Complete online tutorials and apply knowledge in dissertation data analysis.	**By June 2026**	Certificates of completion; improved analysis accuracy.
Strengthen Theoretical Application in Research Design	Review CyBOK, NIST, and ISO frameworks for integration in future dissertation.	**By February 2026**	Research plan demonstrating theoretical grounding.
Improve Time Management	Create a structured study calendar balancing work, research, and reflection.	**Ongoing (Jan–Jun 2026)**	Consistent on-time submission of dissertation milestones.
Build Reflective Practice Portfolio	Continue documenting progress in GitHub e-Portfolio for continuous feedback.	**By January 2026**	Updated public repository linking all RMPP artefacts.

6. **Summary and Reflection**

This combined Professional Skills Matrix, SWOT Analysis, and SMART Action Plan demonstrates my development throughout the Research Methods and Professional Practice module.

Through this module, I advanced from a practitioner-based cybersecurity mindset to an academically grounded researcher — capable of designing, analysing, and reflecting upon ethical and empirical research.

Key strengths were built in ethical reasoning, structured academic writing, and foundational statistics.

Areas for growth include mastering advanced analysis tools, applying theory to research frameworks, and strengthening time management strategies.

The SMART plan provides a clear roadmap for continuous improvement, ensuring readiness for the dissertation stage and alignment with Essex Graduate Attributes — particularly critical analysis, communication, professionalism, and lifelong learning.