**Appendix A**

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| **EMCC General Education Abilities Matrix**  |
| **Abilities / Thinking Skills** | **Communication** | **Composition/ Writing** | **Numeracy** | **Scientific Inquiry** | **Information Literacy** | **Technological Literacy** | **Social, Civic, and Global Responsibility** |
| Level 1RememberIdentify & define basic components of a discipline | Know appropriate presentation vocabulary and conventions. | Know writing conventions.  | Recall principles, procedures and correct terminology. | Remember basic components of science.  | Recognize the need for information. Construct research question and searching strategy. | Know basic digital terminology and identify technology and its safe use. | Identify current social, civic and global issues. |
| Level 2UnderstandDescribe relationships between basic components.  | Articulate an understanding of content by expressing the idea in your own words. Identify key concepts of a presentation. | Demonstrate an understanding of context. Identify purpose, audience, and/or situation of a document. | Draw conclusions and justify methods and procedures. | Understand science in context. | Understand issues affecting the use of information while observing laws, regulations, and institutional policies. | Understand the relationships between technological components, the nature, behavior, power, and consequences of technology and how it impacts our values and culture. | Discuss and interpret social, civic and global issues. |
| Level 3ApplyExhibit knowledge of components through presentation, performance and solutions in a new context. | Present information using appropriate language and delivery through a variety of techniques. | Apply knowledge of a topic to a given scenario using appropriate writing conventions. | Apply a strategy for a solution. | Apply knowledge and comprehension of science components to various situations. | Know where to find information. Use information for a specific purpose. | Responsibly use of technology solutions to generate new ideas, processes, and products. | Apply knowledge of global, social and civic mores to current situations. |
| Level 4AnalyzeUse critical and creative thinking skills to analyze materials and/or products.  | Analyze and adapt a presentation for a particular audience. | Demonstrate ability to analyze perspectives using appropriate writing strategies such as compare and contrast, cause and effect, etc. | Determine relevant information, appropriate mathematical concepts and logical/reasonable responses. | Analyze data and techniques using knowledge of components. | Analyze information needs to determine best sources. | Analyze technology for appropriateness, functionality, and social impact. | Differentiate social, global and civic practices from an ethnocentric perspective. |
| Level 5EvaluateEvaluates information to reach reasonable conclusions. | Organize information for a presentation. Critique a presentation according to specified criteria. | Evaluate the strengths and/or weaknesses of an argument. Support a position by using and citing appropriate sources. | Verify a procedure using concrete models. | Evaluate data and conclusions using knowledge of components. | Evaluate validity of sources, understand peer review, primary, and other types of sources. Consider author's bias. | Evaluate the authenticity, credibility, and reproducibility of information and products to determine the cultural, social, political and economic effects. | Evaluate and consider change in perspective from a social, civic and global viewpoint. |
| Level 6CreateCreate materials and or products that demonstrate critical thinking. | Prepare and deliver a presentation on a given topic. | Compose a piece of writing for given purpose that meets the needs of a specific audience and/or situation. | Integrate parts into something new to form a new product. | Create materials or products using scientific components and relationships.  | Create original work using information from sources using correct citation format. | Create products that satisfy the needs of society and contribute to continued innovation. | Construct a model which integrates social, civic and/ or global engagement. |