

Career & Technical Education (CTE) Standards Revision Project

Cluster: Human Services

Pathway: Personal Care Services

Human Services Cluster Overview

The Human Services cluster prepares students for employment in pathways related to families and human needs. The Personal Care Services pathway in particular prepares students to assist individuals with their personal appearance, including shampooing, cutting, coloring and styling hair; giving manicures, pedicures and scalp and facial treatments; providing makeup analysis. (Source: www.careerclusters.org)

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Standards: Personal Care Services

Career Cluster/Cluster Grouping:	Human Services
Pathway(s):	Personal Care Services (*Cosmetology)
Prepared Completer Competencies: <ul style="list-style-type: none"> HMC 10. Technical Skills: Use the technical knowledge skills required to pursue the targeted careers for all pathways in the career cluster, including knowledge of design, operation and maintenance of technological systems critical to the career cluster. 	
High School Expectations	
Concepts and skills students know include: <ul style="list-style-type: none"> HMC 10.01 Describe and apply technical knowledge and skills required to be successful in careers in the human services area. 	
Evidence Outcomes Students Can:	21st Century Skills and Readiness Competencies
<p>a. Practice skills in a chosen career path to gain familiarity with technical processes.</p> <p>MAT01.02.a, MAT01.03.a , RWC01.01.c, RWC01.01.d.,</p> <p>SCI 01.02.b, SCI01.03.b, SCI 02.08.a</p> <p>PWR01.02.a, PWR01.02.b, PWR01.02.c, PWR01.02.d PWR01.03.a, PWR01.03.c, PWR01.03.d</p>	Academic Content Knowledge Alignment: <p>MAT01.02.a - Mathematics, Number Sense, Properties, and Operations</p> <ul style="list-style-type: none"> Formulate, represent, and use algorithms with real numbers flexibly, accurately, and efficiently. <ul style="list-style-type: none"> Use appropriate computation methods that encompass estimation and calculation. <p>MAT01.03.a - Mathematics, Number Sense, Properties, and Operations</p> <ul style="list-style-type: none"> Systematic counting techniques are used to describe and solve problems. <ul style="list-style-type: none"> Use combinatorics (Fundamental Counting Principle, permutations and combinations) to solve problems in real - world contexts.

	<p>RWC01.01.c - Reading, Writing, and Communicating, Oral Expression and Listening</p> <ul style="list-style-type: none"> • Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness. <ul style="list-style-type: none"> ○ Use examples, illustrations, graphics, quotations, analogies, facts, and statistics to focus and support the content of a presentation <p>RWC01.01.d - Reading, Writing, and Communicating, Oral Expression and Listening</p> <ul style="list-style-type: none"> • Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness. <ul style="list-style-type: none"> ○ Use grammar and vocabulary appropriate for the situation, audience, topic and purpose <p>SCI01.02.b - Science, Physical Science</p> <ul style="list-style-type: none"> • Matter has definite structure that determines characteristic physical and chemical properties <ul style="list-style-type: none"> ○ Gather, analyze and interpret properties - Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity. <p>SCI01.03.b - Science, Physical Science</p> <ul style="list-style-type: none"> • Matter can change form through chemical or nuclear reactions abiding by the laws of conservation of mass and energy <ul style="list-style-type: none"> ○ Predict reactants and products for different types of chemical and nuclear reactions <p>SCI02.08.a - Science, Life Science</p> <ul style="list-style-type: none"> • Multicellularity makes possible a division of labor at the cellular level through the expression of select genes, but not the entire genome. <ul style="list-style-type: none"> ○ Develop, communicate, and justify and evidence - based scientific explanation of how cells form specialized tissues due to the expression of some genes and not others <p>Learning & Behavioral Skills – Post - Secondary & Workplace Readiness:</p> <p>PWR01.02.a - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences</p> <ul style="list-style-type: none"> • Think critically, analyze evidence, read graphs, understand logical arguments, detect logical fallacies, test conjectures, evaluate risks, and appreciate the role mathematics plays in the modern world, i.e., be quantitatively literate
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**PWR01.02.b - Postsecondary & Workforce Readiness, Content Knowledge ,
Mathematical Sciences**

- Understand and apply algebraic and geometric concepts and techniques

**PWR01.02.c - Postsecondary & Workforce Readiness, Content Knowledge ,
Mathematical Sciences**

- Use concepts and techniques of probability and statistics

**PWR01.02.d - Postsecondary & Workforce Readiness, Content Knowledge ,
Mathematical Sciences**

- Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life

**PWR01.03.a - Postsecondary & Workforce Readiness, Content Knowledge ,
Science**

- Think scientifically and apply the scientific method to complex systems and phenomena

**PWR01.03.c - Postsecondary & Workforce Readiness, Content Knowledge ,
Science**

- Recognize that scientific conclusions are subject to interpretation and can be challenged

**PWR01.03.d - Postsecondary & Workforce Readiness, Content Knowledge ,
Science**

- Understand the core scientific concepts, principles, laws, and vocabulary, and how scientific knowledge is extended, refined, and revised over time

High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> HMC 10.02 Select and use cost effective resources to assist with planning the delivery of human services. 	
Evidence Outcomes Students Can:	21 st Century Skills and Readiness Competencies
<p>a. Practice skills in a chosen career path to gain familiarity with technical processes.</p> <p>MAT01.02.a, MAT01.03.a, MAT 02.06.d, MAT02.06.e</p> <p>RWC01.01.d, RWC01.01.e, RWC04.03.c, RWC04.02.a RWC04.03.d</p> <p>SCI 01.02.b</p> <p>PWR01.02.a, PWR01.02.b, PWR01.02.c, PWR01.02.d, PWR01.03.a, PWR01.03.c, PWR01.03.d</p>	<p>Academic Content Knowledge Alignment:</p> <p>MAT01.02.a - Mathematics, Number Sense, Properties, and Operations</p> <ul style="list-style-type: none"> Formulate, represent, and use algorithms with real numbers flexibly, accurately, and efficiently. <ul style="list-style-type: none"> Use appropriate computation methods that encompass estimation and calculation. <p>MAT01.03.a - Mathematics, Number Sense, Properties, and Operations</p> <ul style="list-style-type: none"> Systematic counting techniques are used to describe and solve problems. <ul style="list-style-type: none"> Use combinatorics (Fundamental Counting Principle, permutations and combinations) to solve problems in real - world contexts. <p>MAT02.06.d - Mathematics, Patterns, Functions, and Algebraic Structures</p> <ul style="list-style-type: none"> Quantitative relationships in the real world can be modeled and solved using functions. <ul style="list-style-type: none"> Evaluate, using all tools including graphing technology, the costs and benefits of credit (PFL) <p>MAT02.06.e - Mathematics, Patterns, Functions, and Algebraic Structures</p> <ul style="list-style-type: none"> Quantitative relationships in the real world can be modeled and solved using functions <ul style="list-style-type: none"> Analyze various lending sources, services, and financial institutions (PFL) <p>RWC01.01.d - Reading, Writing, and Communicating, Oral Expression and Listening</p> <ul style="list-style-type: none"> Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness. <ul style="list-style-type: none"> Use grammar and vocabulary appropriate for the situation, audience, topic, and purpose.

RWC01.01.e - Reading, Writing, and Communicating, Oral Expression and Listening

- Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness.
 - Choose specific words and word order for intended effect and meaning

RWC04.02.a - Reading, Writing, and Communicating, Research and Reasoning

- Logical arguments distinguish facts from opinions, and evidence defines reasoned judgment.
 - Synthesize information to support a logical argument

RWC04.03.c - Reading, Writing, and Communicating, Research and Reasoning

- Self - designed research provides insightful information, conclusions, and possible solutions.
 - Evaluate quality, accuracy, and completeness of information and the bias, credibility and reliability of the sources

RWC04.03.d - Reading, Writing, and Communicating, Research and Reasoning

- Self - designed research provides insightful information, conclusions, and possible solutions
 - Use a variety of strategies (e.g. technical reading, direct observation, survey development) to collect relevant information to support the thesis/research question and explain why specific strategies were used instead of others.

SCI01.02.b - Science, Physical Science

- Matter has definite structure that determines characteristic physical and chemical properties.
 - Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, and conductivity.

Learning & Behavioral Skills – Post - Secondary & Workplace Readiness:

PWR01.02.a - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences

- Think critically, analyze evidence, read graphs, understand logical arguments, detect logical fallacies, test conjectures, evaluate risks, and appreciate the role mathematics plays in the modern world, i.e., be quantitatively literate

**PWR01.02.b - Postsecondary & Workforce Readiness, Content Knowledge ,
Mathematical Sciences**

- Understand and apply algebraic and geometric concepts and techniques

**PWR01.02.c - Postsecondary & Workforce Readiness, Content Knowledge ,
Mathematical Sciences**

- Use concepts and techniques of probability and statistics

**PWR01.02.d - Postsecondary & Workforce Readiness, Content Knowledge ,
Mathematical Sciences**

- Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life

**PWR01.03.a - Postsecondary & Workforce Readiness, Content Knowledge ,
Science**

- Think scientifically and apply the scientific method to complex systems and phenomena

**PWR01.03.c - Postsecondary & Workforce Readiness, Content Knowledge ,
Science**

- Recognize that scientific conclusions are subject to interpretation and can be challenged

**PWR01.03.d - Postsecondary & Workforce Readiness, Content Knowledge ,
Science**

- Understand the core scientific concepts, principles, laws, and vocabulary, and how scientific knowledge is extended, refined, and revised over time

High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> HMC 10.03 Describe and apply human development principles to enhance the well being of individuals served by the human services industry. 	
Evidence Outcomes Students Can:	21st Century Skills and Readiness Competencies
<p>a. Demonstrate services that align with human development principles.</p> <p>MAT01.02.a, MAT01.03.a, , MAT03.01.a, MAT03.01.b, MAT03.01.c, MAT030.2.a, MAT04.01.b, MAT04.01.c, MAT04.01.d, MAT04.02.a</p> <p>RWC01.01.a , RWC01.01.f , SCI 01.02.b</p> <p>PWR1.2.a, PWR1.2.b, PWR1.2.c, PWR1.2.d PWR1.3.a, PWR1.3.c, PWR1.3.d</p>	<p>Academic Content Knowledge Alignment:</p> <p>MAT01.02.a - Mathematics, Number Sense, Properties, and Operations</p> <ul style="list-style-type: none"> Formulate, represent, and use algorithms with real numbers flexibly, accurately, and efficiently. <ul style="list-style-type: none"> Use appropriate computation methods that encompass estimation and calculation <p>MAT01.03.a - Mathematics, Number Sense, Properties, and Operations</p> <ul style="list-style-type: none"> Systematic counting techniques are used to describe and solve problems <ul style="list-style-type: none"> Use combinatorics (Fundamental Counting Principle, permutations and combinations) to solve problems in real - world contexts. <p>MAT03.01.a - Mathematics, Data Analysis, Statistics, and Probability</p> <ul style="list-style-type: none"> Statistical methods take variability into account, supporting informed decision - making through quantitative studies designed to answer specific questions. <ul style="list-style-type: none"> Formulate appropriate research questions that can be answered with statistical analysis <p>MAT03.01.b - Mathematics, Data Analysis, Statistics, and Probability</p> <ul style="list-style-type: none"> Statistical methods take variability into account, supporting informed decision - making through quantitative studies designed to answer specific questions. <ul style="list-style-type: none"> Determine appropriate data collection methods to answer a research question <p>MAT03.01.c - Mathematics, Data Analysis, Statistics, and Probability</p> <ul style="list-style-type: none"> Statistical methods take variability into account, supporting informed decision - making through quantitative studies designed to answer specific questions <ul style="list-style-type: none"> Explain how data might be analyzed to provide answers to a research question

MAT03.02.a - Mathematics, Data Analysis, Statistics, and Probability

- The design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions.
 - Identify the characteristics of a well - designed and well - conducted survey.

MAT04.01.b - Mathematics, Shape, Dimension, and Geometric Relationships

- Attributes of two - and three - dimensional objects are measurable and can be quantified
 - Justify, interpret, and apply the use of formulas for the surface area, and volume of cones, pyramids, and spheres including real - world situations

MAT04.01.c - Mathematics, Shape, Dimension, and Geometric Relationships

- Attributes of two - and three - dimensional objects are measurable and can be quantified
 - Solve for unknown quantities in relationships involving perimeter, area, surface area, and volume

MAT04.01.d - Mathematics, Shape, Dimension, and Geometric Relationships

- Attributes of two - and three - dimensional objects are measurable and can be quantified.
 - Apply the effect of dimensional change, utilizing appropriate units and scales in problem - solving situations involving perimeter, area, and volume

MAT04.02.a - Mathematics, Shape, Dimension, and Geometric Relationships

- Objects in the plane and their parts, attributes, and measurements can be analyzed deductively
 - Classify polygons according to their similarities and differences

RWC01.01.a - Reading, Writing, and Communicating, Oral Expression and Listening

- Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness.
 - Prepare and deliver a formal presentation for different purposes and audiences (such as expository, persuasive, entertaining, inspirational, or recognition)

RWC01.01.f - Reading, Writing, and Communicating, Oral Expression and Listening

- Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness
 - Select appropriate technical or specialized language

	<p>SCI01.02.b - Science, Physical Science</p> <ul style="list-style-type: none"> • Matter has definite structure that determines characteristic physical and chemical properties. <ul style="list-style-type: none"> ○ Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity
	<p>Learning & Behavioral Skills – Post - Secondary & Workplace Readiness:</p> <p>PWR1.2.a - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences</p> <ul style="list-style-type: none"> • Think critically, analyze evidence, read graphs, understand logical arguments, detect logical fallacies, test conjectures, evaluate risks, and appreciate the role mathematics plays in the modern world, i.e., be quantitatively literate <p>PWR1.2.b - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences</p> <ul style="list-style-type: none"> • Understand and apply algebraic and geometric concepts and techniques <p>PWR1.2.c - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences</p> <ul style="list-style-type: none"> • Use concepts and techniques of probability and statistics <p>PWR1.2.d - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences</p> <ul style="list-style-type: none"> • Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life <p>PWR1.3.a - Postsecondary & Workforce Readiness, Content Knowledge , Science</p> <ul style="list-style-type: none"> • Think scientifically and apply the scientific method to complex systems and phenomena <p>PWR1.3.c - Postsecondary & Workforce Readiness, Content Knowledge , Science</p> <ul style="list-style-type: none"> • Recognize that scientific conclusions are subject to interpretation and can be challenged <p>PWR1.3.d - Postsecondary & Workforce Readiness, Content Knowledge , Science</p> <ul style="list-style-type: none"> • Understand the core scientific concepts, principles, laws, and vocabulary, and how scientific knowledge is extended, refined, and revised over time.

High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> • HMPD 10.01 Synthesize client and professional information to attract new clientele and retain present clientele. 	
Evidence Outcomes Students Can:	21st Century Skills and Readiness Competencies
<p>a. Research/assess client records to determine trends.</p> <p>MAT01.02.a, MAT01.03.a, MAT02.06.a, MAT03.02.c, MAT03.03.a, MAT03.03.b, MAT03.03.c</p> <p>RWC01.01.c, RWC01.01.d, RWC01.01.e, RWC01.01.f RWC04.08.d, RWC04.06.b, RWC04.06.d</p> <p>b. Research current techniques and trends to determine applicability to business/organization.</p> <p>MAT01.03.a, MAT02.06.a, MAT03.02.c</p> <p>RWC01.01.c, RWC01.01.d, RWC01.01.e, RWC01.01.f RWC04.08.d, RWC04.06.b, RWC04.06.d</p> <p>PWR01.02.a, PWR01.02.b, PWR01.02.c, PWR01.02.d</p>	<p>Academic Content Knowledge Alignment:</p> <p>MAT01.02.a - Mathematics, Number Sense, Properties, and Operations</p> <ul style="list-style-type: none"> • Formulate, represent, and use algorithms with real numbers flexibly, accurately, and efficiently. <ul style="list-style-type: none"> ○ Use appropriate computation methods that encompass estimation and calculation <p>MAT01.03.a - Mathematics, Number Sense, Properties, and Operations</p> <ul style="list-style-type: none"> • Systematic counting techniques are used to describe and solve problems. <ul style="list-style-type: none"> ○ Use combinatorics (Fundamental Counting Principle, permutations and combinations) to solve problems in real - world contexts <p>MAT02.06.a - Mathematics, Patterns, Functions, and Algebraic Structures</p> <ul style="list-style-type: none"> • Quantitative relationships in the real world can be modeled and solved using functions. <ul style="list-style-type: none"> ○ Represent, solve, using all tools including graphing technology, and interpret problems in various contexts using linear, quadratic, and exponential functions <p>MAT03.02.c - Mathematics, Data Analysis, Statistics, and Probability.</p> <ul style="list-style-type: none"> • The design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions. <ul style="list-style-type: none"> ○ Differentiate between the inferences that can be drawn in experiments versus observational studies <p>MAT03.03.a - Mathematics, Data Analysis, Statistics, and Probability.</p> <ul style="list-style-type: none"> • Visual displays and summary statistics condense the information in data sets into usable knowledge. <ul style="list-style-type: none"> ○ Identify and choose appropriate ways to summarize numerical or categorical data using tables, graphical displays, and numerical summary statistics (describing shape, center and spread) and accounting for outliers when appropriate

MAT03.03.b - Mathematics, Data Analysis, Statistics, and Probability.

- Visual displays and summary statistics condense the information in data sets into usable knowledge.
 - Define and explain how sampling distributions (developed through simulation) are used to describe the sample - to - sample variability of sample statistics

MAT03.03.c - Mathematics, Data Analysis, Statistics, and Probability.

- Visual displays and summary statistics condense the information in data sets into usable knowledge.
 - Describe the relationship between two categorical variables using percents

RWC01.01.c - Reading, Writing, and Communicating, Oral Expression and Listening.

- Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness.
 - Use examples, illustrations, graphics, quotations, analogies, facts, and statistics to focus and support the content of a presentation

RWC01.01.d - Reading, Writing, and Communicating, Oral Expression and Listening.

- Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness.
 - Use grammar and vocabulary appropriate for the situation, audience, topic and purpose

RWC01.01.e - Reading, Writing, and Communicating, Oral Expression and Listening.

- Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness.
 - Choose specific words and word order for intended effect and meaning

RWC01.01.f - Reading, Writing, and Communicating, Oral Expression and Listening.

- Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness.
 - Select appropriate technical or specialized language

	<p>RWC04.08.d - Reading, Writing, and Communicating, Research and Reasoning.</p> <ul style="list-style-type: none"> • Informational materials, including electronic sources, need to be collected, evaluated, and analyzed for accuracy, relevance, and effectiveness for answering research questions. <ul style="list-style-type: none"> ○ Examine materials to determine appropriate primary and secondary sources to use for investigating a question, topic, or issue (e.g. library databases, print and electronic encyclopedia and other reference materials, pamphlets, book excerpts, online and print newspaper and magazine articles, letters to an editor, digital forums, oral records, research summaries, scientific and trade journals) <p>RWC4.6.b - Reading, Writing and Communicating, Research and Reasoning.</p> <ul style="list-style-type: none"> • Collect, evaluate and analyze information from multiple sources to answer a question, propose solutions or share findings and conclusions. <ul style="list-style-type: none"> ○ Formulate open - ended research questions <p>RWC04.06.d - Reading, Writing, and Communicating, Research and Reasoning.</p> <ul style="list-style-type: none"> • Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions. <ul style="list-style-type: none"> ○ Use a variety of strategies (such as search engines, online databases, interview) to collect and organize relevant and significant information <hr/> <p>Learning & Behavioral Skills – Post - Secondary & Workplace Readiness:</p> <p>PWR01.02.a - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences</p> <ul style="list-style-type: none"> • Think critically, analyze evidence, read graphs, understand logical arguments, detect logical fallacies, test conjectures, evaluate risks, and appreciate the role mathematics plays in the modern world, i.e., be quantitatively literate <p>PWR01.02.b - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences</p> <ul style="list-style-type: none"> • Understand and apply algebraic and geometric concepts and techniques <p>PWR01.02.c - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences</p> <ul style="list-style-type: none"> • Use concepts and techniques of probability and statistics
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**PWR01.02.d - Postsecondary & Workforce Readiness, Content Knowledge ,
Mathematical Sciences**

- Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life

High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> • HMPD 10.02 Employ administrative/clerical procedures and systems to provide client satisfaction. 	
Evidence Outcomes Students Can:	21st Century Skills and Readiness Competencies
<p>a. Use software to create in - house documents and advertising materials.</p> <p>MAT01.0.3.a, MAT01.04.a, MAT02.06.a,</p> <p>RWC2.6.b</p> <p>PWR01.02.a, PWR01.02.b, PWR01.02.c, PWR01.02.d,</p> <p>b. Maintain current and accurate client records using office/records management systems.</p> <p>MAT01.03.a, MAT01.04.a, MAT02.06.a, MAT01.02.d, MAT02.06.a, MAT02.06.c, MAT02.06.d, MAT02.06.e</p> <p>RWC2.6.b</p> <p>PWR01.02.a, PWR01.02.b, PWR01.02.c, PWR01.02.d</p>	<p>Academic Content Knowledge Alignment:</p> <p>MAT01.02.d-Mathematics, Number Sense, Properties, and Operations:</p> <ul style="list-style-type: none"> • Formulate, represent, and use algorithms with real numbers flexibly, accurately, and efficiently <ul style="list-style-type: none"> ○ Design and use a budget, including income (net take-home pay) and expenses (mortgage, car loans, and living expenses) to demonstrate how living within your means is essential for a secure financial future (PFL). <p>MAT01.03.a - Mathematics, Number Sense, Properties and Operations</p> <ul style="list-style-type: none"> • Development of an understanding of counting techniques. <ul style="list-style-type: none"> ○ Use combinatorics (Fundamental Counting Principle, permutations and combinations) to solve problems in real world contexts. <p>MAT01.04.a - Mathematics, Number Sense, Properties and Operations</p> <ul style="list-style-type: none"> • Application of computation and estimation. <ul style="list-style-type: none"> ○ Use appropriate computation methods that encompasses estimation, calculation and degree of precision. <p>MAT01.02.d - Mathematics, Number Sense, Properties, and Operations.</p> <ul style="list-style-type: none"> • Formulate, represent, and use algorithms with real numbers flexibly, accurately, and efficiently <ul style="list-style-type: none"> ○ Design and use a budget, including income (net take - home pay) and expenses (mortgage, car loans, and living expenses) to demonstrate how living within your means is essential for a secure financial future (PFL)

	<p>MAT02.06.a - Mathematics, Patterns, Functions, and Algebraic Structures</p> <ul style="list-style-type: none"> • Quantitative relationships in the real world can be modeled and solved using functions. <ul style="list-style-type: none"> ○ Represent, solve, using all tools including graphing technology, and interpret problems in various contexts using linear, quadratic, and exponential functions <p>MAT02.06.c - Mathematics, Patterns, Functions, and Algebraic Structures</p> <ul style="list-style-type: none"> • Quantitative relationships in the real world can be modeled and solved using functions. <ul style="list-style-type: none"> ○ Analyze, using all tools including graphing technology, the impact of interest rates on a personal financial plan (PFL) <p>MAT02.06.d - Mathematics, Patterns, Functions, and Algebraic Structures</p> <ul style="list-style-type: none"> • Quantitative relationships in the real world can be modeled and solved using functions. <ul style="list-style-type: none"> ○ Evaluate, using all tools including graphing technology, the costs and benefits of credit (PFL) <p>MAT02.06.e - Mathematics, Patterns, Functions, and Algebraic Structures</p> <ul style="list-style-type: none"> • Quantitative relationships in the real world can be modeled and solved using functions. <ul style="list-style-type: none"> ○ Analyze various lending sources, services, and financial institutions (PFL) <p>RWC2.6.b - Reading, Writing and Communicating, Reading for All Purposes</p> <ul style="list-style-type: none"> • Apply understanding of complex organizational text structures and features to reading comprehension. <ul style="list-style-type: none"> ○ Use the features of electronic information to communicate, gain information, or research a topic. <hr/> <p>Learning & Behavioral Skills – Post - Secondary & Workplace Readiness:</p> <p>PWR01.02.a - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences</p> <ul style="list-style-type: none"> • Think critically, analyze evidence, read graphs, understand logical arguments, detect logical fallacies, test conjectures, evaluate risks, and appreciate the role mathematics plays in the modern world, i.e., be quantitatively literate <p>PWR01.02.b - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences</p> <ul style="list-style-type: none"> • Understand and apply algebraic and geometric concepts and techniques
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**PWR01.02.c - Postsecondary & Workforce Readiness, Content Knowledge ,
Mathematical Sciences**

- Use concepts and techniques of probability and statistics

**PWR01.02.d - Postsecondary & Workforce Readiness, Content Knowledge ,
Mathematical Sciences**

- Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life

High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> • HMPD 10.03 Select and apply various methods of obtaining feedback from clients and their families to understand their expectations and promote high quality standards. 	
Evidence Outcomes Students Can:	21st Century Skills and Readiness Competencies
<p>a. Identify client/family needs through evaluation of information elicited through various methods.</p> <p>MAT03.01.a, MAT03.01.b, MAT03.01.c, MAT03.02.a, MAT03.03.a, MAT03.03.b, MAT03.03.c</p> <p>RWC01.01.c, RWC01.01.d, RWC01.01.e, RWC04.06.b, RWC04.06.c, RWC04.06.d</p> <p>PWR1.2.a, PWR1.2.b, PWR1.2.c, PWR1.2.d</p> <p>b. Provide high - quality services and products.</p> <p>c. Design alternative delivery of services to serve special needs clients.</p> <p>d. Create a customer satisfaction survey to collect feedback on services provided.</p> <p>e. Use a customer satisfaction survey to collect feedback on services provided.</p> <p>MAT03.01.a, MAT03.01.b, MAT03.01.c, MAT03.02.a, MAT03.02.c, MAT03.03.a, MAT03.03.b, MAT03.03.c</p> <p>RWC01.01.b, RWC1.1.c, RWC1.1.d, RWC1.1.e, RWC01.01.f, RWC4.6.b, RWC4.6.c, RWC4.6.d</p> <p>PWR1.2.a, PWR1.2.b, PWR1.2.c, PWR1.2.d</p>	<p>Academic Content Knowledge Alignment:</p> <p>MAT03.01.a - Mathematics, Data Analysis, Statistics, and Probability</p> <ul style="list-style-type: none"> • Statistical methods take variability into account, supporting informed decision - making through quantitative studies designed to answer specific questions. <ul style="list-style-type: none"> ○ Formulate appropriate research questions that can be answered with statistical analysis <p>MAT03.01.b - Mathematics, Data Analysis, Statistics, and Probability</p> <ul style="list-style-type: none"> • Statistical methods take variability into account, supporting informed decision - making through quantitative studies designed to answer specific questions. <ul style="list-style-type: none"> ○ Determine appropriate data collection methods to answer a research question <p>MAT03.01.c - Mathematics, Data Analysis, Statistics, and Probability.</p> <ul style="list-style-type: none"> • Statistical methods take variability into account, supporting informed decision - making through quantitative studies designed to answer specific questions. <ul style="list-style-type: none"> ○ Explain how data might be analyzed to provide answers to a research question <p>MAT03.02.a - Mathematics, Data Analysis, Statistics, and Probability</p> <ul style="list-style-type: none"> • The design of an experiment or sample survey is of critical importance in analyzing the data and drawing conclusions. <ul style="list-style-type: none"> ○ Identify the characteristics of a well - designed and well - conducted survey <p>MAT03.02.c - Mathematics, Data Analysis, Statistics, and Probability.</p> <ul style="list-style-type: none"> • The design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions. <ul style="list-style-type: none"> ○ Differentiate between the inferences that can be drawn in experiments versus observational studies

MAT03.03.a - Mathematics, Data Analysis, Statistics, and Probability.

- Visual displays and summary statistics condense the information in data sets into usable knowledge.
 - Identify and choose appropriate ways to summarize numerical or categorical data using tables, graphical displays, and numerical summary statistics (describing shape, center and spread) and accounting for outliers when appropriate

MAT03.03.b - Mathematics, Data Analysis, Statistics, and Probability

- Visual displays and summary statistics condense the information in data sets into usable knowledge.
 - Define and explain how sampling distributions (developed through simulation) are used to describe the sample - to - sample variability of sample statistics

MAT03.03.c - Mathematics, Data Analysis, Statistics, and Probability.

- Visual displays and summary statistics condense the information in data sets into usable knowledge.
 - Describe the relationship between two categorical variables using percents

RWC01.01.b-Reading, Writing, and Communicating, Oral Expression and Listening

- Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness
 - Identify a central idea or thesis, organize ideas, and develop a speech for an intended purpose and audience

RWC01.01.c - Reading, Writing, and Communicating, Oral Expression and Listening.

- Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness.
 - Use examples, illustrations, graphics, quotations, analogies, facts, and statistics to focus and support the content of a presentation

RWC01.01.d - Reading, Writing, and Communicating, Oral Expression and Listening.

- Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness.
 - Use grammar and vocabulary appropriate for the situation, audience, topic, and purpose

	<p>RWC01.01.e - Reading, Writing, and Communicating, Oral Expression and Listening.</p> <ul style="list-style-type: none"> • Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness. <ul style="list-style-type: none"> ○ Choose specific words and word order for intended effect and meaning <p>RWC01.01.f - Reading, Writing, and Communicating, Oral Expression and Listening.</p> <ul style="list-style-type: none"> • Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness. <ul style="list-style-type: none"> ○ Select appropriate technical or specialized language <p>RWC04.06.b - Reading, Writing and Communicating, Research and Reasoning.</p> <ul style="list-style-type: none"> • Collect, evaluate and analyze information from multiple sources to answer a question, propose solutions or share findings and conclusions. <ul style="list-style-type: none"> ○ Formulate open - ended research questions <p>RWC04.06.c - Reading, Writing, and Communicating, Research and Reasoning.</p> <ul style="list-style-type: none"> • Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions. <ul style="list-style-type: none"> ○ Identify and evaluate potential sources of information for accuracy, reliability, validity, and timeliness <p>RWC04.06.d - Reading, Writing, and Communicating, Research and Reasoning.</p> <ul style="list-style-type: none"> • Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions. <ul style="list-style-type: none"> ○ Use a variety of strategies (such as search engines, online databases, interview) to collect and organize relevant and significant information <p>Learning & Behavioral Skills – Post - Secondary & Workplace Readiness:</p> <p>PWR1.2.a - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences</p> <ul style="list-style-type: none"> • Think critically, analyze evidence, read graphs, understand logical arguments, detect logical fallacies, test conjectures, evaluate risks, and appreciate the role mathematics plays in the modern world, i.e., be quantitatively literate <p>PWR1.2.b - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences</p> <ul style="list-style-type: none"> • Understand and apply algebraic and geometric concepts and techniques
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**PWR1.2.c - Postsecondary & Workforce Readiness, Content Knowledge ,
Mathematical Sciences**

- Use concepts and techniques of probability and statistics

**PWR1.2.d - Postsecondary & Workforce Readiness, Content Knowledge ,
Mathematical Sciences**

- Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life

High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> • HMPD 10.04 Employ techniques, principles, tools and instruments when developing efficient and safe delivery of client services to enhance client satisfaction. 	
Evidence Outcomes Students Can:	21st Century Skills and Readiness Competencies
<p>a. Produce and use precision technical plans to develop delivery of client services.</p> <p style="padding-left: 20px;">MAT04.02.b, MAT04.02.c,</p> <p style="padding-left: 20px;">RWC01.07.b, RWC1.8.a, RWC02.02.c, RWC04.03.c, RWC04.03.d, RWC04.09.a</p> <p style="padding-left: 20px;">PWR01.02.a, PWR01.02.b, PWR01.02.c, PWR01.02.d</p> <p>b. Create and use drawings and models to develop delivery of client services.</p> <p style="padding-left: 20px;">MAT04.02.b, MAT04.02.c</p> <p style="padding-left: 20px;">RWC01.07.b, RWC01.8.a, RWC02.02.b, RWC04.03.c, RWC04.03.d, RWC04.09.a</p> <p style="padding-left: 20px;">PWR01.02.a, PWR01.02.b, PWR01.02.c, PWR01.02.d</p>	<p>Academic Content Knowledge Alignment:</p> <p>MAT04.02.b - Mathematics, Shape, Dimension, and Geometric Relationships.</p> <ul style="list-style-type: none"> • Objects in the plane and their parts, attributes, and measurements can be analyzed deductively. <ul style="list-style-type: none"> ○ Solve for unknown attributes of geometric shapes based on their congruence, similarity, or symmetry <p>MAT04.02.c - Mathematics, Shape, Dimension, and Geometric Relationships</p> <ul style="list-style-type: none"> • Objects in the plane and their parts, attributes, and measurements can be analyzed deductively. <ul style="list-style-type: none"> ○ Know and apply properties of angles including corresponding, exterior, interior, vertical, complimentary, and supplementary angles to solve problems. Justify the results using two - column proofs, paragraph proofs, flow charts or illustrations <p>RWC01.07.b - Reading, Writing, and Communicating, Oral Expression and Listening.</p> <ul style="list-style-type: none"> • Oral presentations require effective preparation strategies <ul style="list-style-type: none"> ○ Use verbal and nonverbal techniques to communicate information <p>RWC01.08.a - Reading, Writing and Communicating, Oral Expression and Language Study.</p> <ul style="list-style-type: none"> • Apply knowledge of word origins, word structures, usage, mechanics and sentence structure to expand vocabulary used in reading writing and oral communication. <ul style="list-style-type: none"> ○ Identify, describe and apply conventions of Standard English.

RWC02.02.b - Reading, Writing, and Communicating, Reading for All Purposes.

- Interpreting and evaluating complex informational texts require the understanding of rhetoric, critical reading, and analysis skills.
 - Use semantic cues, signal words, and transitions to identify text structures (such as critique, proposition/support, inductive/deductive) and to summarize central ideas and supporting details

RWC04.03.c - Reading, Writing, and Communicating, Research and Reasoning.

- Self - designed research provides insightful information, conclusions, and possible solutions.
 - Evaluate quality, accuracy, and completeness of information and the bias, credibility and reliability of the sources

RWC04.03.d - Reading, Writing, and Communicating, Research and Reasoning.

- Self - designed research provides insightful information, conclusions, and possible solutions.
 - Use a variety of strategies (e.g., technical reading, direct observation, survey development) to collect relevant information to support the thesis/research question and explain why specific strategies were used instead of others

RWC04.09.a-Reading, Writing, and Communicating, Research and Reasoning:

- Effective problem-solving strategies require high-quality reasoning
 - Analyze the purpose, question at issue, information, points of view, implications and consequences, inferences, assumptions and concepts inherent in thinking

Learning & Behavioral Skills – Post - Secondary & Workplace Readiness:

PWR01.02.a - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences

- Think critically, analyze evidence, read graphs, understand logical arguments, detect logical fallacies, test conjectures, evaluate risks, and appreciate the role mathematics plays in the modern world, i.e., be quantitatively literate

PWR01.02.b - Postsecondary & Workforce Readiness, Content Knowledge , Mathematical Sciences

- Understand and apply algebraic and geometric concepts and techniques

**PWR01.02.c - Postsecondary & Workforce Readiness, Content Knowledge ,
Mathematical Sciences**

- Use concepts and techniques of probability and statistics

**PWR01.02.d - Postsecondary & Workforce Readiness, Content Knowledge ,
Mathematical Sciences**

- Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life