

### Computer Competence

**Learning Outcome 1: Ability to create digital computational artifacts (e.g., spreadsheets, SAP or SPSS reports, source code, etc.) used to solve problems.**

Learning Outcome	4 Thorough	3 Adequate	2 Limited	1 Weak	Unscorable
<b>Ability to create digital computational artifacts (e.g., spreadsheets, SAP or SPSS reports, source code, etc.) used to solve problems</b>	Clearly makes correct and appropriate choices in writing or using functions, syntax, statistical tests and/or displays of data	Makes many correct and appropriate choices in writing or using functions, syntax, statistical tests and/or displays of data	Makes some correct and appropriate choices in writing or using functions, syntax, statistical tests and/or displays of data	Makes few correct and appropriate choices in writing or using functions, syntax, statistical tests and/or displays of data	Evidence does not measure learning outcome
	and/or	and/or	and/or	and/or	
	Employs logical thinking in designing the artifact	Mostly employs logical thinking in designing the artifact	Makes some errors in logical thinking in designing the artifact	Makes many errors in logical thinking in designing the artifact	
	and	and/or	and/or	and/or	
	Makes almost no errors	Makes minor errors	Makes some minor errors and/or major errors	Makes many major errors	
and	and	and/or	and/or		
Assignment is complete	Assignment is complete or essentially complete	Assignment is incomplete	Assignment is incomplete		

**Learning Outcome 2: Ability to apply appropriate computing tools to solve problems, describe data, and/or analyze models.**

<b>Learning Outcome</b>	<b>4 Thorough</b>	<b>3 Adequate</b>	<b>2 Limited</b>	<b>1 Weak</b>	<b>Unscorable</b>
<p><b>Ability to apply appropriate computing tools to solve problems, describe data, and/or analyze models</b></p>	<p>Applies appropriate computing tools or methods;</p> <p>Employs correct logical and algorithmic thinking to solve a problem</p> <p>and/or</p> <p>Creates an accurate &amp; appropriate representation of data, clearly interprets data and/or results of statistical tests</p> <p>and/or</p> <p>Clearly analyzes models or simulations, e.g., makes predictions, applies What-if analysis, describes assumptions, constraints, conclusions</p>	<p>Applies appropriate computing tools or methods;</p> <p>Mostly employs correct logical and algorithmic thinking to solve a problem</p> <p>and/or</p> <p>Creates mostly accurate &amp; appropriate representation of data, interprets data and/or results of statistical tests well</p> <p>and/or</p> <p>Analyzes models or simulations well</p> <p>and/or</p> <p>Makes minor errors</p>	<p>Applies some appropriate computing tools or methods;</p> <p>Employs some correct logical and algorithmic thinking to solve a problem</p> <p>and/or</p> <p>Creates some inaccurate or inappropriate representations of data, struggles to interpret data and/or results of statistical tests properly</p> <p>and/or</p> <p>Some analysis of models or simulations</p> <p>and/or</p> <p>Makes some minor errors and/or major errors</p>	<p>Applies few appropriate computing tools or methods;</p> <p>Employs very little correct logical and algorithmic thinking to solve a problem</p> <p>and/or</p> <p>Creates many inaccurate or inappropriate representations of data, makes many errors interpreting data and/or results of statistical tests</p> <p>and/or</p> <p>Poorly analyzes models or simulations</p> <p>and/or</p> <p>Makes many major errors</p>	<p>Evidence does not measure learning outcome</p>