A learning objective is a “statement of what students will be able to do when they have completed instruction” (Arreola, 1998, p. 2). Objectives are
1. Related to intended outcomes, NOT processes.
2. Specific and measurable, NOT broad and intangible.
3. Concerned with students, NOT teachers.

Why use appropriate learning objectives? Learning objectives are useful for
1. Selection of content and instructional materials.
2. Development of instructional strategies through instructor ingenuity.
4. Guiding student efforts in the learning processes (communicating to students what they are expected to learn) (Mager, 1997).

Learning objectives generally include:
1. Performance or behavior. What is the learner expected to be able to do or produce? This reflects competencies that will be learned in terms of performance. Performances and behaviors should be overt, observable, and measurable.
2. Conditions. How will the competency or knowledge be demonstrated? This may include the specific information the learner should use, or listing the tools, references or aids that will be available to the student in demonstrating accomplishment of the objective.
3. Criterion or degree. What specific set of criteria must be met to demonstrate mastery? This signifies a level of performance.

How to write learning objectives:
1. Include a definite, measurable verb that signifies a demonstrable learning outcome.
2. Make sure that each objective contains an intended performance/behavior, conditions for demonstrating competence, and a criterion/degree of performance.
3. Strive for higher order thinking (analysis, synthesis and evaluation levels) when applicable.

Bloom’s Taxonomy of Writing Learning Objectives (Arreola, 1998):

<table>
<thead>
<tr>
<th>TAXONOMY</th>
<th>DESCRIPTION</th>
<th>COMMON LEARNING VERBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>To recall and memorize</td>
<td>arrange, define, describe, examine, recognize, reproduce</td>
</tr>
<tr>
<td>Comprehension</td>
<td>To translate from one form to another</td>
<td>classify, conclude, contrast, differentiate, discover, discuss, explain, infer, predict, relate, represent, summarize</td>
</tr>
<tr>
<td>Application</td>
<td>To apply or use information in a new situation</td>
<td>administer, articulate, assess, compute, construct, demonstrate, develop, establish, examine, illustrate, implement, measure, practice, present, select, solve</td>
</tr>
<tr>
<td>Analysis</td>
<td>To examine a concept and break it down into parts</td>
<td>analyze, appraise, associate, characterize, contrast, determine, diagnose, discriminate, outline, prioritize, research, test</td>
</tr>
<tr>
<td>Synthesis</td>
<td>To reorganize information in a unique or novel way to solve a problem</td>
<td>adapt, assemble, communicate, compile, conduct, create, design, devise, formulate, generalize, integrate, perform, produce, synthesize, theorize, validate</td>
</tr>
<tr>
<td>Evaluation</td>
<td>To make judgments using standards of appraisal</td>
<td>argue, assess, compare &amp; contrast, critique, defend, evaluate, interpret, justify, prove, recommend, support, value, weigh</td>
</tr>
</tbody>
</table>
Example Learning Objectives

At the conclusion of this course, the student will be able to:

…explain and provide representational examples of why a comparative advantage exists in other countries that produce labor intensive value added products

…describe examples of career opportunities available to program graduates and develop a plan to secure his/her chosen career

…compare and contrast arguments related to the impact of climatic variability on global warming theories

…apply the principles of non-linearity and thresholds in biogeochemical systems to examine source causes of the browning of the Sahara

…relate significant historical events to their impact on consumer acceptance of foods containing genetically modified organisms

…scientifically and systematically assess local conditions and structures that impact community economic development

…use the ELISA diagnosis test to accurately and consistently diagnose plant diseases caused by the major groups of plant pathogens