

COURSE FOR2060: MEASURING THE FOREST 2 (SAMPLING TECHNIQUES)**Level:** Intermediate**Theme:** Technology and Applications**Prerequisite:** FOR1060 Measuring the Forest 1 (Measurement Skills)
Emergency First Aid (current certification)**Description:** Students research current forest inventory practices, and demonstrate appropriate strategies for sampling the fibre and nonfibre values of forests.**Parameters:** Access to a demonstration forest and forest measurement tools.
Instructor training (current certification) in Standard Level First Aid is required.
See Section C (Planning for Instruction) and Section H (Linkages/Transitions) for further information on instructor training and certification.**Supporting Course:** CTR1210 Personal Safety (Management) [Career Transitions Strand]
Because of the practical nature of this course, students must have a general knowledge of basic first-aid and survival techniques relevant to forest environments. See Planning for Instruction in Section C for further information on student safety.**Curriculum and Assessment Standards**

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> describe random and systematic sampling techniques for gathering information about the forest resource 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> completing a research project on random and systematic sampling techniques and their application in gathering data about fibre and nonfibre forest values. Research to address problems related to bias, error, and the use of sample data in estimating forest populations. <p><i>Assessment Tool</i> <i>Research Process: Random and Systematic Sampling Techniques, FOR2060–1</i></p> <p><i>Standard</i> <i>Complete all components of research to a standard of 2 on the rating scale</i></p>	20

COURSE FOR2060: MEASURING THE FOREST 2 (SAMPLING TECHNIQUE) (continued)

General Outcomes	Assessment Criteria and Conditions	Suggested Emphasis
<p><i>The student will:</i></p> <ul style="list-style-type: none"> demonstrate basic competencies. 	<p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> summarizing and assessing the strengths and weaknesses of the sample data and statements made about the forest resource. <p><i>Assessment Tool</i> <i>Task Checklist: Sampling Fibre and Nonfibre Forest Values, FOR2060–2</i></p> <p><i>Standard</i> <i>Summarize and assess survey results (as outlined in the task checklist) to a standard of 2 on the rating scale</i></p> <ul style="list-style-type: none"> observations of individual effort and interpersonal interaction during the learning process. <p><i>Assessment Tool</i> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p>	<p>10</p> <p>Integrated throughout</p>

Concept	Specific Outcomes	Notes
<p>Sample Designs</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> describe different sampling designs and techniques: <ul style="list-style-type: none"> random systematic describe sample designs and techniques most suited to gathering data about specific forest components identify bias and error in sampling design, and problems related to the use of sample data in estimating forest populations. 	<p>Investigate applications of</p> <ul style="list-style-type: none"> transects plots/nested plots surveys and questionnaires. <p>For example:</p> <ul style="list-style-type: none"> distribution of tree species growth, age and/or volume of trees soil, water and/or wildlife characteristics potential for recreation and/or agriculture.

COURSE FOR2060: MEASURING THE FOREST 2 (SAMPLING TECHNIQUE) (continued)

Concept	Specific Outcomes	Notes
<p>Fibre and Nonfibre Values</p>	<p><i>The student should:</i></p> <ul style="list-style-type: none"> • identify goals/outcomes for a forest survey • identify the type and amount of information regarding the forest resource that is required • design techniques for sampling the forest region that are most suited to gathering the type of information required • calculate and locate the boundary of the sample area within the forest region • identify safety practices and policies relevant to gathering sample data in the forest • gather data regarding the volume and/or condition of timber resources within the sample plots • gather data regarding the nature of other nonfibre resources present within the sample plots • record sample data regarding fibre and nonfibre resources in appropriate tables and charts • compile sample data as required to estimate fibre volumes and other nonfibre values within the forest region • assess the strengths and weaknesses of the sample data and statements made about the forest resource. 	<p>PLAN AND SHARE - LEARN FROM OTHERS.</p> <p>Develop, as a class project, a sampling design appropriate to surveying a specific forest resource. Use the sampling design to collect data.</p> <p>For example,</p> <ul style="list-style-type: none"> • tree height/diameter • age of trees • number and distribution of species. <p>For example,</p> <ul style="list-style-type: none"> • soil and water quality • distribution of wildlife • potential for recreation/agriculture. <p>Make estimates regarding the forest population based on data collected.</p> <p>Discuss the validity/reliability of results.</p>