

TECHNOLOGY EDUCATION: HUMAN ECOLOGY

Technology education provides students with opportunities for solving problems, designing, performing essential life skills, constructing products, and addressing current trends and issues. Students use and study technology to create practical solutions to problems – individually or in groups – to develop technical skills, knowledge, and attitudes.

Technology education enables students to explore their ideas, gain practical experiences, and work through thinking processes in a safe and supportive environment. The ability to adapt to a changing technological society and to accept social responsibility is paramount to all Manitobans in the pursuit of new careers and lifestyles. Technology education allows learners to evaluate their strengths and interests in career choices. It also reflects rapid changes in the workplace and allows students to make informed decisions about their future.

Technology education includes the courses found in the subject area of human ecology.

Human Ecology

With this renewal comes a new subject name: human ecology. The change in this new curriculum is significant, so a name change is a natural progression.

The name change reflects the evolving educational landscape while preserving the original home economics perspectives. This is illustrated in the new human ecology logo, which depicts the sprouting of stems and the unfurling of leaves.



Rationale

Human ecology courses provide an interdisciplinary approach that integrates social and physical science theory and action through the study of everyday living. It contributes to empowering individuals to become active and informed members of society who are able to live independently, within thriving families and in dynamic communities.

Human ecology education provides students with essential knowledge and transferable skills that are applicable to their personal lives and success in learning, life, and work.

Mission

The goal of **human ecology** is for students to

- discover knowledge that enhances everyday living
- explore and apply experiential learning
- integrate the principles of preventative, proactive, and practical approaches to support individuals in their personal lives, families, and communities

Vision

Human ecology education strives to

- enhance personal well-being
- develop and apply technical, communicative, and thinking skills
- cultivate skills to participate in a dynamic society

Credit Allocation

The Senior Years (Grades 9–12) credit system provides flexibility to enable students to pursue Senior Years courses best suited to their individual requirements and aspirations. There are no prerequisites for the human ecology courses.

Human ecology courses are designated as optional credits towards high school graduation requirements. For more information, see the *Subject Table Handbook* on the Manitoba Education and Training website at www.edu.gov.mb.ca/k12/docs/policy/sth/.

A student may earn one credit by undertaking and successfully completing a course of study designed for a minimum of 110 hours of instruction. Half credits (courses designed for a minimum of 55 hours of instruction) may be earned in like manner.

Half-credit courses enable schools to offer two pre-determined curriculum areas within the semester, depending on the teacher expertise available and facility demands (e.g., 55 hours in two areas of study within the domain of human ecology: environmental design, family studies, food and nutrition, textile arts and design). This still provides students the opportunity to receive one full credit towards their high school graduation requirements.

A student may earn either a full or half credit at each grade level within the same subject area.

A student may not earn either a full or half credit at each grade level for the new human ecology curriculum and the previous home economics curricula (i.e., *Clothing, Housing and Design 10–12 [1988]*, *Food and Nutrition 10–12 [1988]*, *Home Economics: Senior 1 [1993]*, and *Senior Years Family Studies [2004]*).

Code	Course Name	Grade/Designation
0486	Human Ecology	10S 10E 10M 20S 20E 20M 30S 30E 30M 40S 40E 40M
0487	Family Studies	15S 15E 15M 25S 25E 25M 35S 35E 35M 45S 45E 45M
0487	Family Studies	10S 10E 10M 20S 20E 20M 30S 30E 30M 40S 40E 40M
0488	Textile Arts and Design	15S 15E 15M 25S 25E 25M 35S 35E 35M 45S 45E 45M
0488	Textile Arts and Design	10S 10E 10M 20S 20E 20M 30S 30E 30M 40S 40E 40M
0489	Food and Nutrition	15S 15E 15M 25S 25E 25M 35S 35E 35M 45S 45E 45M
0489	Food and Nutrition	10S 10E 10M 20S 20E 20M 30S 30E 30M 40S 40E 40M
0490	Environmental Design	30S 30E 30M 40S 40E 40M 35S 35E 35M 45S 45E 45M
0491	Applied Family Studies	40S 40E 40M

Specialized (S): Educational experiences in specialized areas leading to further studies beyond the Senior Years (e.g., apprenticeship, college, and university).

EAL (E): Educational experiences designed to focus on English as an additional language (EAL) learning goals in the context of the subject, based on the student’s assessed level of EAL proficiency, and to assist the student in making the transition into regular Senior Years programming in this content area. An EAL Individual Educational Plan (EAL-IEP) is required for each student.

Modified (M): Educational experiences intended for students with significant cognitive disabilities and where the provincial subject-area curriculum outcomes have been modified to take into account the learning requirements of a student; an Individual Education Plan (IEP) is required for each student.

Funding

Funding resources and supports are available to support human ecology programming. Visit the Technology Education Funding web page at www.edu.gov.mb.ca/k12/cur/teched/fund_res.html.

Curriculum Organization

The flexibility of this curriculum enables teachers to provide students with connections to the world in which they live. Students are able to see their relationship to the community as well as to their learning in the classroom. The emphasis is on practical applications and instructional purposes. The learning outcomes in each area of study and their sequence can vary based on the activities within the course.

Curriculum Goals

Curriculum goals outline the major curriculum components in addition to the general or across-the-curriculum learning goals for the subject area.

Learning Outcomes

Learning outcomes are statements that indicate what students will know or be able to do by the end of the course or as a result of a learning activity. Learning outcomes are usually expressed as knowledge, skills, or understanding. Learning outcomes should be student-focused and clearly outline the knowledge, skills, or understanding being assessed. Within each subject area, each course contains general and specific learning outcomes that address a particular area of study.

In developing learning outcomes, the assumption was made that courses are taught by experts in their field; therefore, the terminology and language used in the curriculum is specific to the area of expertise.

General Learning Outcomes

General learning outcomes (GLOs) are overarching statements about what students are expected to learn in each course. They identify broad categories of knowledge, skills, and understandings that students are expected to learn and be able to demonstrate in a subject area or course.

All general learning outcomes are identified with two numbers, indicating the subject-area goal and the general learning outcome. For example, GLO 1.1 is the first general learning outcome under Goal 1.

Specific Learning Outcomes

Specific learning outcomes (SLOs) are statements that identify the specific knowledge, skills, and understandings that students are required to attain by the end of a given course. Some learning outcomes will be revisited several times during a course to allow for connections to be made to other outcomes in the course.

SLOs do not specify the learning activities in which students will participate in order to attain them. In most courses, the emphasis is on applied learning activities. Teachers are advised to select learning activities best suited to teach the SLOs, based on a variety of factors including access to resources or regional needs. In light of rapid changes in technology, teachers are encouraged to update their learning activities in order to meet the needs of students.

SLOs are not necessarily sequential. In other words, they might be taught in an order different from how they appear in the document.

All specific learning outcomes are identified with a sequence of numbers separated by dots. These characters code the general learning outcome and specific learning outcomes. For example, SLO 1.1.1 is the first specific learning outcome under GLO 1.1.

Safety-Related Learning Outcomes

Schools need to offer, in a safe environment, human ecology activities that are educationally rewarding and relevant to both students' lives and their possible future careers. These desired goals can only be achieved through team effort involving all of those who set and administer school policies, design and maintain the learning environment, plan and deliver human ecology lessons, and select and prepare the materials used.

Human ecology teachers must reinforce safety as a priority to students. The specific learning outcomes related to safety are expressed explicitly in each course, but safety should be integrated throughout all courses and reinforced continually. Because of the importance of safety training, development team members have concluded that, with a few exceptions, teachers need to teach and assess safety in every course in their subject area. Therefore, all safety-related SLOs are repeated in all subject areas.

The goal of the "Safety in Senior Years Human Ecology" section (Appendix 1) is to compile information to help principals, planners, teachers, and support staff make sound decisions regarding safety. The document identifies areas for decision making and action at a variety of levels. It supports

planning and action by providing information on safety legislation and standards, safety hazards, and examples of procedures for eliminating or minimizing hazards.

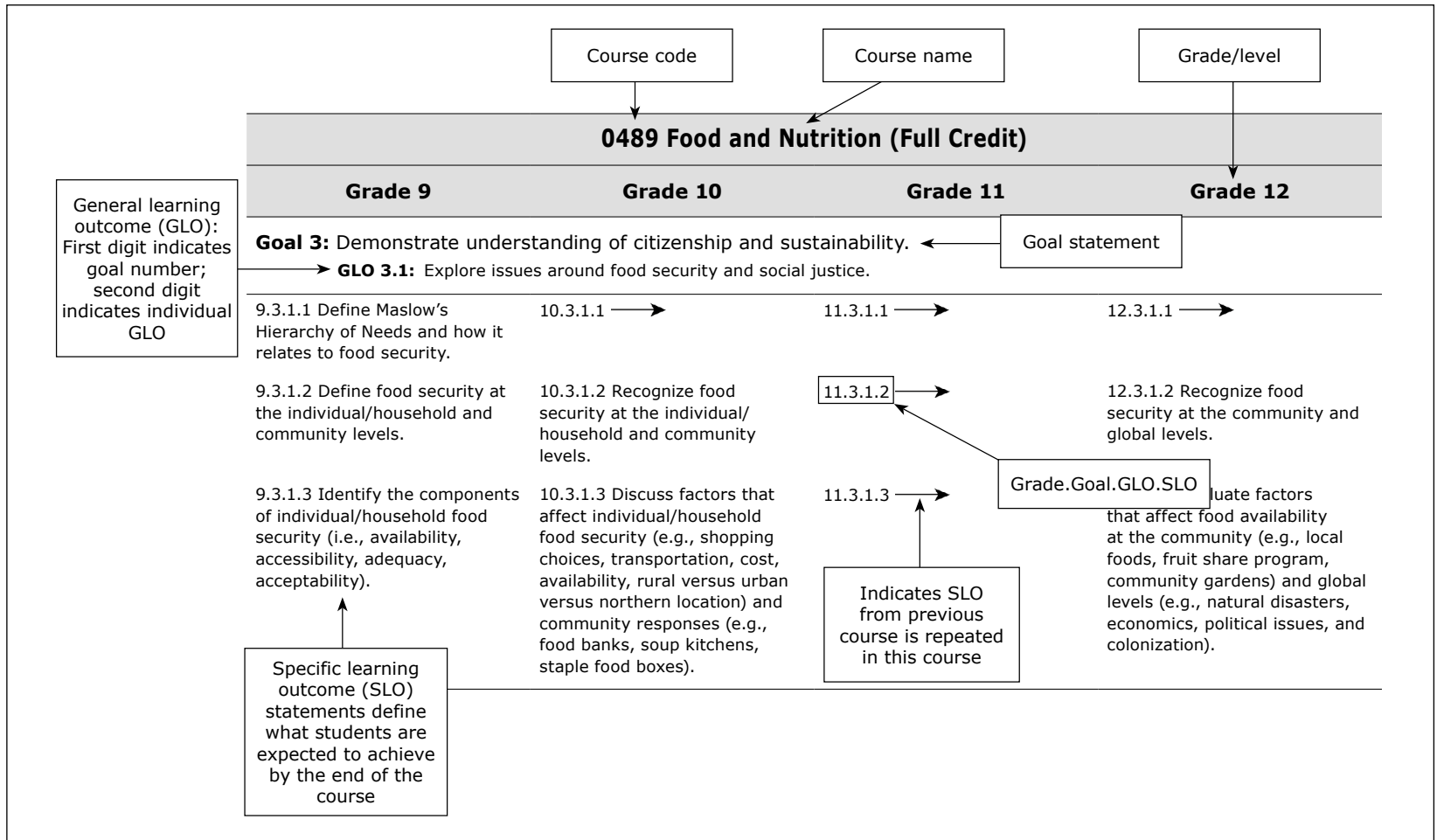
Teacher and Administrator Safety Implications

Principals and classroom teachers must be aware of accident/injury liability and negligence statements found in *The Public Schools Act*, as well as in the Manitoba Education and Training *Administrative Handbook: School Administration – Negligence and Liability* (available on the department website at www.edu.gov.mb.ca/k12/docs/policy/admin/school_admin.pdf).

Below is segment N1 from the *Administrative Handbook* (January 2010), which includes a three-page section of reference on negligence and liability.

If students are to be placed in situations where the potential for injury exists, appropriate skills training and safety briefings must take place, and safety regulations must be conscientiously enforced. In addition, school officials are legally obligated to see that any facilities and equipment used are in a safe condition. Particular caution should be exercised with regard to physical education equipment, playground equipment, vocational/industrial shops, etc.

Guide to Reading Senior Years Human Ecology Goals and Learning Outcomes



Curriculum Implementation

Senior Years Human Ecology: Manitoba Curriculum Framework of Outcomes is intended to provide a guide for curriculum implementation. The human ecology curriculum replaces the former curricula (i.e., *Clothing, Housing and Design 10–12 [1988]*; *Food and Nutrition 10–12 [1988]*; *Home Economics: Senior 1 [1993]*; and *Senior Years Family Studies [2004]*).

During the voluntary implementation year, teachers in Manitoba have the option of teaching the new draft curriculum the year before it is mandatory. They also have the choice to continue to teach the old curriculum during that year. Course codes for the new courses are available now and can be found in the *Subject Table Handbook*.

Under system-wide implementation, all human ecology teachers in Manitoba must teach the new curriculum. Teachers will no longer be able to use the old codes.

As of fall 2018, *Senior Years Human Ecology: Manitoba Curriculum Framework of Outcomes* is available on the Manitoba Education and Training website.

Date	Voluntary Implementation	System-Wide Implementation
Fall 2018	X	
Fall 2019		X

Learning Resources

Teams of teacher-evaluators nominated from Manitoba schools examine publishers' submissions, evaluate learning resources, and make recommendations regarding the suitability of resources for Manitoba classrooms. The Senior Years Human Ecology learning resource shortlists or bibliographies will be available Fall 2018 at www.edu.gov.mb.ca/k12/learnres/index.html#educators.

