

CURRICULUM GUIDE FOR GARDENING STUDY SCHOOLS  
**COURSE I**

**Total hours: 10**

BASIC BOTANY FOR GARDENERS – Tested Subject – Open book option 2.5 hours  
A. Plant structure and organization  
B. How plants survive  
C. Reproduction  
D. Study of plant structure through a hand-magnifying lens, if available, or other visual aids

SOILS – Tested Subject 2 hours  
A. Definition  
B. Characteristics/structure  
C. Humus  
D. Soil testing  
E. Functions  
F. Soil mixes  
G. Roots in soils

HOUSEPLANT BASICS – Tested Subject 1.5 hours  
A. Selection  
B. Containers  
C. Soils and growing media  
D. Culture

PLANT PROPAGATION 1.5 hours  
A. Plants from seed  
1. Storage  
2. Germination  
3. Growing seedlings  
4. Transplanting  
B. Vegetative propagation  
1. Bulbs, roots, tubers, rhizomes  
2. Layering and stolons  
3. Stem and leaf cuttings  
4. Grafting or budding  
5. Tissue culture, if desired

PROPAGATION ACTIVITY 1.5 hours  
Hands-on activity involving plant propagation.

SUPPLEMENTAL SUBJECT 1 hour  
Refer to Suggested Supplemental Subjects on page 6

WRITTEN EXAMS 3 hours allowed  
See page 11 for more on exam requirements.

**CURRICULUM GUIDE FOR GARDENING STUDY SCHOOLS**  
**COURSE II**

**Total hours: 10**

**UNDERSTANDING PLANT DISEASES AND GARDEN PESTS**

2 hours

Tested subject – Open book test option

- A. Problem survey
- B. Controls
  - 1. Biological
  - 2. Chemical
- C. Pesticide safety
- D. Cultural practices
  - 1. Sanitation
  - 2. Crop rotation
  - 3. Interplanting
  - 4. Mulches
  - 5. Predators

Student to bring an example of plant material with evidence of insect damage or disease for identification and observation of problem (if location allows).

**CONTAINER GARDENING – Tested Subject**

2 hours

- A. Advantages
- B. Types of containers
- C. Types of plants
- D. General culture

**TECHNIQUES FOR GROWING VEGETABLES – Tested Subject**

2 hours

- A. Choice of varieties
- B. When to plant
- C. How to plant
- D. Pest control
- E. Rotation
- F. Interplanting
- G. Common problems
- H. Other cultural problems

**HOW NEW PLANTS ARE DEVELOPED AND EVALUATED**

1.5 hours

- A. By the professional plant breeder
- B. By the hobbyist
- C. Commercially
- D. Test gardens

**TECHNIQUES FOR GROWING LAWNS AND/OR LAWN ALTERNATIVES**

1.5 hours

- A. Site preparation
- B. Selection of grass and seeding or alternative choices
- C. Maintenance
- D. Lawn and/or lawn alternative problems

**SUPPLEMENTAL SUBJECT**

1 hour

Refer to Suggested Supplemental Subjects on page 6

**WRITTEN EXAMS**

3 hours allowed

See page 11 for more on exam requirements.

CURRICULUM GUIDE FOR GARDENING STUDY SCHOOLS  
**COURSE III**

**Total hours: 10**

FACTORS THAT INFLUENCE PLANT GROWTH – Tested subject – Open book test option  
2 hours

- A. Environment
  - 1. Light
  - 2. Water
  - 3. Temperature
  - 4. Atmospheric conditions; effects of pollution
  - 5. Nutrients
- B. Heredity

PRUNING TECHNIQUES – Tested Subject 1.5 hours

- A. When, how and why
- B. Tools
- C. Results
- D. Demonstration, indoors and outdoors. Student participation encouraged.

TECHNIQUES FOR GROWING OUTDOOR FLOWERS – Tested Subject 1.5 hours

- A. Choice of varieties
- B. When and how to plant
- C. Pest control
- D. Training
- E. Rotation
- F. Common problems
- G. Landscape effects

TEACHING TOUR OF A BOTANICAL GARDEN 2.5 hours

If no botanical garden is available, a field trip may be substituted, as long as the following objectives can be met:

- A. Major plant family characteristics to be observed
- B. Local specifics to be considered may include:
  - 1. Bedding annuals
  - 2. Plants for flavoring
  - 3. Poisonous garden plants
  - 4. Weed collection
  - 5. Wild food plants

CLASSIFYING PLANTS (PLANT TAXONOMY) 1.5 hours

- A. A look at plants and plant-like organisms
- B. Some important families of flowering plants

SUPPLEMENTAL SUBJECT 1 hour

Refer to Suggested Supplemental Subjects on page 6

WRITTEN EXAMS 3 hours allowed  
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CURRICULUM GUIDE FOR GARDENING STUDY SCHOOLS  
**COURSE IV**

**Total hours: 10**

OUTDOOR IDENTIFICATION OF PLANTS – Tested Subject	3 hours
A. Review major plant family characteristics	
B. Suitable key and glossary provided by instructor	
C. Plants to be studied with hand lens	
D. Identify major representatives of the plant families, <i>using the lens and key provided</i>	
SPECIALIZED STYLES OF GARDENING – Tested Subject	2 hours
A. Organic	
B. Greenhouse	
C. Shade gardens	
D. Water gardens, rock gardens, etc.	
E. Hot beds and cold frames	
TECHNIQUES FOR GROWING WOODY ORNAMENTALS – Tested Subject	1.5 hours
Local specifics to be considered	
A. Choice of varieties	
B. When and how to plant	
C. Training	
D. Specific problems	
E. Necessary protections	
TECHNIQUES FOR GROWING FRUIT	1.5 hours
Local specifics to be considered	
A. Choice of varieties	
B. When and how to plant	
C. Training	
D. Specific problems	
E. Necessary protections	
HOME IRRIGATION TECHNIQUES	1 hour
A. Water and drainage basics	
B. Methods of delivery, i.e. sprinklers, drip, bubblers, soaker hoses	
C. When and how much to water	
D. Grouping plants by similar water needs	
E. Water quality	
SUPPLEMENTAL SUBJECT	1 hour
Refer to Suggested Supplemental Subjects on page 6	
WRITTEN EXAMS	3 hours allowed
See page 11 for more on exam requirements.	

## LIST OF SUGGESTED SUPPLEMENTAL SUBJECTS

The State GSS Chairman may suggest other subjects for approval by the Accrediting Chairman. Local interests will be considered.

Botanical gardens or conservatories: program with visual aids and commentary  
Composting and recycling in the garden  
Evolution of plants or geographic origins of garden plants  
Exotic and rare plants  
Growing bonsai, cacti & succulents, ground covers and vines, orchids, bromeliads, roses, herbs  
Growing under lights  
How to exhibit horticulture specimens in a flower show  
Micro-environments in the garden  
Native and/or edible wild plants  
Non-flowering plants: i.e. fungi, grasses, mosses, club mosses, horsetails, ferns, etc.  
Outdoor study and identification of native plants  
Outdoor study of fungi and/or pests with hand lens  
Pesticide study and safety  
Planning and maintaining shade gardens or gardens for your particular region/soils/climates  
Planting and maintenance of hanging containers. Student to mix soil and bring container  
Planting bulbs to be forced. Instructions to be given and bulbs planted during class  
Round-table discussion of selected topic with leader  
Storage of fruits and vegetables  
Study of tissue culture  
Sustainable/eco-wise planning and planting  
Training espaliers and topiaries  
Visit a test garden where new varieties are grown, a water garden, an organic garden, bedding plant or hydroponics nursery or greenhouse  
Weed identification, treatment, and control  
Wildflower appreciation and culture  
Any plant-related subject approved by the NGC Accrediting Chairman

## REQUIRED READING LIST FOR GARDENING STUDY SCHOOLS

### ALL COURSES

	2005 prices *
<i>The National Gardener</i> – 4 issues per year – at least a three-year subscription	\$18.00
<i>Living With Plants</i> , Schumann	24.95
<i>Western Garden Book</i> – Sunset – (For western areas only)	36.95

### *Living With Plants*

Course I – Chapters 1-4, 8

Course II – Chapters 5, 7-9

Course III – Chapters 6, 10; Review chapters 1, 2, 9

Course IV – Review chapters 6 and 9

*Western Garden Book*, A Practical Guide to Gardening Section

Course I – Plant Anatomy and Growth, Plant Propagation, Soils and Soil Management

Course II – Container Gardening, Diseases, Ground Covers, Lawns, Pests and Pest Management, Vegetable Gardening

Course III – Pruning

Course IV – Shrubs, Water Conservation

\* All books listed are available from NGC. For current prices see Member Services Catalog available at no charge from NGC, 4401 Magnolia Avenue, St. Louis, Missouri 63110. Books may be ordered in advance of a course by the Course Committee or state book chairman to assure that books are available by the course date.

In addition to the above, it is recommended that literature appropriate to the gardening region in which each Course is held be used as references. This list may be sent to all registrants with their study packet (outlines) prior to the Course date. The NGC GSS Chairman may give permission for substitution of any book which is more appropriate for local specifics, upon request of the State GSS Chairman.

