

Intern Training Program Curriculum Goals and Objectives

Mission:

WHRI's intern program provides: training in holistic ministry that equips individuals to work with communities in developing sustainable farming techniques

Interns are expected to:

- I. Develop skills in **sustainable agricultural** production and problem-solving.
 - Grow food crops in a sustainable manner.
 - Identify, nourish, and maintain soil quality.
 - Design, conduct and analyze applied research trials.
 - Understand irrigation and water management techniques.
 - Manage livestock through all life phases.
 - Analyze local conditions and resources and design productive, sustainable farming systems using those resources.
 - Understand other aspects of farm management including labor allocation and marketing.
 - Understand the spiritual foundations for environmental stewardship.
 - Reduce waste and consumption in lifestyle.

- II. Learn approaches to **community development**, cross-cultural communication, and adult education.
 - Conduct community need and resource assessments.
 - Apply effective adult education methods.
 - Know principles of project planning, facilitation, evaluation, and community-based organizing.
 - Communicate successfully in cross-cultural situations.
 - Develop skills in conflict transformation techniques.
 - Become familiar with micro-finance systems.

- III. Understand the socio-political contexts of **world hunger** and develop a holistic **Christian missions** response
 - Understand the causes, myths, and consequences of world hunger.
 - Identify social, political, and economic structures that either contribute to or help alleviate hunger and poverty.
 - Know and practice biblical principles for social action and justice.
 - Integrate evangelism and social action.
 - Gain an appreciation for biblical and spiritual holism.
 - Understand current and historical approaches to Christian missions.

- IV. Become familiar with food technology, **nutrition and health** issues.
 - Know the components of a healthy diet and the nutritive value of various food products.

- Recognize the causes and symptoms of malnutrition.
- Describe best practices for hygiene in handling food and water
- Understand waste disposal systems, including composting and toilets.
- Be familiar with appropriate technologies for potable water and energy production.
- Know effective means of food storage, preservation, and preparation.
- Know common disease dangers and effective prevention/treatment methods in developing settings.

Intern Training Program Curriculum Activities

I. Sustainable Agriculture Classes

A. PLANT PRODUCTION

See also field trips, projects, case studies

Soils

- Soil physical properties
- Soil physical properties (*fieldwork/practicum*)
- Soil fertility I
- Soil fertility II
- Soil and plant tissue testing
- Soil biology I
- Soil biology II
- Compost tea

Weeds

- Perennial (fall) weed identification I
- Perennial (fall) weed identification II
- Perennial weed management
- Annual (spring) weed identification I
- Annual (spring) weed identification II
- Annual weed management

Pests

- Insect identification I
- Insect identification II
- Insect management I
- Insect management II
- IPM (integrated pest management), organic, and alternative management approaches I
- IPM II
- Plant disease and abiotic disorders I
- Plant disease and abiotic disorders II

Crops

- ❑ History of agriculture
- ❑ Sustainable and organic agriculture – discussion of what these mean
- ❑ Agroforestry and agroecology
- ❑ Crop selection
- ❑ Cropping systems
- ❑ Irrigation I
- ❑ Irrigation II
- ❑ Green manures and cover crops
- ❑ Grafting
- ❑ Seed selection and storage
- ❑ Designing, conducting and analyzing research trials
- ❑ No-till and minimum till agriculture

B. ANIMAL HUSBANDRY

See also field trips, projects, case studies

Large livestock (goats, cattle, some sheep)

- ❑ Breeds, characteristics, breeding & genetics
- ❑ Care of young, housing, nutrition, diseases, and other problems
- ❑ Butchering and processing (*practicum*)
- ❑ Dairy production
- ❑ Grazing systems: common methods
- ❑ Grazing systems: rotational, multi-species

Chickens and other poultry

- ❑ Breeds, characteristics, breeding & genetics
- ❑ Incubation, care of young, housing, nutrition, diseases, and other problems
- ❑ Butchering and processing (*practicum*)

Other animal husbandry classes

- ❑ Rabbits
- ❑ Introduction to bees
- ❑ Hive management
- ❑ Draft animal traction

C. MISCELLANEOUS AGRICULTURE

- ❑ Agricultural marketing I
- ❑ Agricultural marketing II

Community Development Classes

See also field, trips, projects, case studies

Community assessment

- ❑ Formal survey techniques
- ❑ Participatory Community Appraisal

The project cycle (2 Ears of Corn)

- Project cycle: Introduction (planning, facilitation and monitoring, evaluation and phase-out) (teach 3 times during each orientation)
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Community development issues

- Cross-cultural communication
- Conflict transformation
- Adult education
- Gender issues
- Micro-economics and poverty alleviation: micro-finance approaches

III. World Hunger and Christian Missions Classes

- Statistics, definitions, and measures of hunger
- Myths, causes, and consequences of hunger; how to respond
- Macro-economics and agriculture: globalization, trade, and food security
- Macro-economics and agriculture: fair trade systems & alternative macro-economics
- Biblical views of economics
- Holistic ministry I: introduction
- Holistic ministry II: biblical holism and agriculture
- Holistic ministry III: Dave Evan’s case study
- Historical development of world missions: general and agricultural

IV. Health and Technology Classes

Food preservation and storage (teach more through practical experience in kitchen)

- Fruit and vegetable preservation
- Food and grain storage

Nutrition and health

- Malnutrition I
- Malnutrition II
- Nutrition I
- Hygiene and health – handling food and water
- Waste management: composting
- Waste management: vermi-composting
- Waste management: toilet design
- Common pathogen dangers, prevention, treatment

Simple energy and water technology

- [Energy production basics] *if time allows?*
- Simple cooking technologies: solar ovens and lorena stoves
- Water management: collection, transport, storage, purification (potability)

Additional or different classes may be offered when we have guest speakers or in response to specific intern interests.

Additional Activities (Suggested)

- ❑ **case studies** on sustainable agriculture in development projects (6 total)
- ❑ **conferences:** ECHO (Fort Myers, FL), TOFGA (Weslaco, TX), World Mandate (Waco, TX) (3 total)
- ❑ **field trips:** other CSA operation, greenhouse, Dairy, multi-species rotational grazing, community development project (5 total)
- ❑ **projects:** each intern will carry out at least 2 research projects (including at least 1 field trial) under the direction of a staff member.

- ❑ WHRI will provide regular hands-on experience in plant production and animal husbandry as needed for farm operation.
- ❑ WHRI will provide regular hands-on experience, as needed for farm use, in food preservation and production of dairy products.
- ❑ WHRI will facilitate additional independent research projects in any of the above topics as well as topics not on this list based on intern interest.
- ❑ WHRI will encourage interns to regularly attend a local church during the internship.
- ❑ WHRI will facilitate the creation, by each intern, of a reference manual and CD for later use in the field.
- ❑ Weekly journal reflections are required. WHRI will provide feedback-monthly on journal reflections.
- ❑ Required reading. In addition to short reading assignments specific to certain classes, we recommend the following books:
 - *Bunch, Roland. 1982. Two Ears of Corn: A Guide to People-Centered Agricultural Improvement. Oklahoma City: World Neighbors.*
 - *Evans, David, Ronald Vos, and Keith Wright, eds. 2003. Biblical Holism and Agriculture: Cultivating Our Roots. Pasadena, California: William Carey Library.*
 - *Lappe, Francis Moore and Joseph Collins (1998) World Hunger: Twelve Myths. New York: Grove Press.*