

**Saint Louis Christian College**  
**GSO302 – Community Development II**  
**Professor Joe A. Lieway**  
**3 Credit Hours**

**Monday 1:00 - 3:45p**

**MISSION STATEMENT**

*Saint Louis Christian College pursues excellence in the Word and develops servant-leaders for urban, suburban, rural and global ministry.*

**Our Core Values**

The Faculty, Staff, and Administration of Saint Louis Christian College embrace and promote the following values in the design and delivery of our programs:

***Bible Knowledge***— Saint Louis Christian College is a Bible college, where every baccalaureate graduate pursues a major in Biblical and theological studies. The Bible’s message informs our understanding of the purpose and predicament of human life, the history of the world, the nature and mission of the Church, and the nature and goal of ministry. —All Scripture is God-breathed and is useful for teaching, rebuking, correcting and training in righteousness, so that the man of God may be thoroughly equipped for every good work.|| (II Tim 3:16-17)

***Christian Character***— Saint Louis Christian College believes that servants of Christ must live by the example and teaching of Christ. We believe that the classical virtues of Wisdom, Courage, Self-control, Justice, Faith, Hope, and Love are exemplified by the life of Christ. He, in perfect humility, taught us first to love God and then to love our neighbors as ourselves. The college’s Code of Student Conduct reflects and encourages these values, as do our hiring practices and academic programs. —I gave you an example, that you also should do as I did to you.|| (John 13:15)

***Ministry Skills***— Because our graduates are called to be servant-leaders in their chosen fields of ministry, they possess the skills to relate to people of many backgrounds, the heart to serve them in their brokenness, and the judgment to effectively apply the Scriptures to life’s diverse situations. Students are challenged and helped to identify and develop their spiritual gifts and are placed in settings to practice those gifts skillfully. —Each one should use whatever gift he has received to serve others, faithfully administering God’s grace in its various forms.|| (I Peter 4:10-11)

***Christian Worldview***— A broad base of academic knowledge is fundamental to becoming an educated person who effectively reasons and interacts in society. At the center of a Christian view of life and the world is the proposition that humans and the universe in which they live were created by the God who has revealed Himself in the

Scriptures. God is the source of all truth, not just religious truth; and the Bible provides the basis for the ordering of all knowledge. The curriculum at Saint Louis Christian College integrates thought and life across a broad academic range and fosters in students a lifelong appreciation for the independent value of knowing. —The fear of the Lord is the beginning of knowledge.|| (Proverbs 1:7) —And Jesus grew in wisdom and stature, and in favor with God and men. (Luke 2:52)

***Christian Community***— Saint Louis Christian College is a diverse community of believers united by Christ in mission and purpose. The intimacy of our campus provides a unique atmosphere for developing lifelong relationships. However, our community extends beyond the boundaries of our campus and into the city in which we live, the church that we serve and the world we want to reach. —They devoted themselves to the apostles' teaching and to the fellowship, to the breaking of bread and to prayer. Everyone was filled with awe, and many wonders and miraculous signs were done by the apostles. All the believers were together and had everything in common. Selling their possessions and goods, they gave to anyone as he had need. Every day they continued to meet together in the temple courts. They broke bread in their homes and ate together with glad and sincere hearts, praising God and enjoying the favor of all the people. And the Lord added to their number daily those who were being saved.|| (Acts 2:42 – 47) (See also Romans 12:4-8 and Ephesians 4: 11-13)

## **COURSE DESCRIPTION**

Students study the principles of Science and economics that underlie agriculture systems and learn a variety of agriculture techniques and practices applicable to the small, diversified farm and homestead. Students combine academic study, practical experiences, and work.

## **COURSE RATIONALE:**

It is becoming more and more apparent in our world of global warming and economic crisis, that it is no longer time to do world missions with “business as usual” mindset. The Sustainable Agriculture Course is therefore designed to help students develop a holistic approach to missions.

The course contributes to the SLCC student learning objectives number six:

Practice servant-leadership on the model of Jesus, addressing the practical issues of racism, poverty, political powerlessness, and spiritual need among the world’s disenfranchised, both urban and rural. Therefore SLCC promotes leadership models that focus on physical, emotional, and spiritual human needs in the wider community and around the world, as well as in students’ local churches.

## **COURSE OBJECTIVES:**

As a result of this study, you should be able to:

1. Have a general knowledge on Greenhouse Operation and Management
2. Understand the biblical basis of agriculture
3. Understand the need for Sustainable Agriculture on the missions field
4. Know the difference between Sustainable Agriculture and Subsistence Agriculture
5. Know the different climates and planting seasons
6. Know the different types of soil, soil preservation and conservation
7. Know the different parts of a plant
8. Understand plant propagation
9. Understand soil erosion and protection
10. Know the different types of plant food

## **COURSE REQUIREMENTS:**

**Exams:** There will be a mid-term exam in this class which will factor in as 15% of course total grade.

## **READING – THE TEXT BOOK FOR THIS CLASS:**

DeFacio, Patricia Et. All, Greenhouse Operation and Management (Columbia: Instructional Materials Laboratory, 2002).

**Reading Worksheets:** The student will be required to read the text as assigned weekly by the instructor. The schedule of readings is detailed in the course schedule below. To give evidence that the reading has been completed, students will answer the study questions provided by the instructor. The answers to these questions are to be turned in at the beginning of class period each week. These worksheets will be graded and factor in as 15% of course total grade.

**Practicum:** You will be assigned a plot of land for vegetable production at the Greenhouse or in a Community Garden approved by the instructor. Your practicum grade will factor in as 70% of course total grade. The grade will be determined base on the follow criteria: Nursery care and management (15%), timely transplant (10%), weed control (15%), water supply (20%), and fertilization (10%).

## ***COURSE ASSESSMENT***

The student's final grade will be determined according to the following formula.

Reading Worksheets	15%
Mid-term Examination	15%
Practicum	70%

## **COURSE RECOMMENDED RESOURCES:**

Lyson, Thomas A., *Civic Agriculture: Reconnecting Farm, Food, and Community* (Hanover and London: Tufts University Press, 2004).

Schwenke, Karl, *Successful Small-Scale Farming* (Storey Publishing, 1991).

Hummert's Helpful Hints 3<sup>rd</sup> Edition (Hummert International, 2005).

## **See Text Book for More Resources**

## **COURSE SCHEDULE:**

January 23 - Class Orientation and Presentation of Syllabus

- Biblical Basis of Agriculture
- Understand the need for Sustainable Agriculture on the missions field
- **Worksheets 1 and 2 Due at Beginning of Class**

January 30 – Unit II: The Growing Structure - *Read Text Book, pages 13-28*

- Greenhouse Parts, Structure, and Covering
- Types of Greenhouse Structures
- Construction of a Growing Structure
- Other Structures and Areas in Commercial Greenhouse Operations
- Environmental Control
- Energy Conservation and Environmental Protection
- **Worksheet 3 Due at Beginning of Class**

February 6 – Unit III: Plant Science Basics Part A - *Read Text Book, pages 29-39*

- Plant Parts, Structures, and Functions
- Structure of a Plant Cell
- Differences Between Monocots and Dicots
- Specialized Plant Tissues
- Parts and Function of Seeds
- Functions and Types of Roots
- Functions, Structures, and Types of Stems
- Functions, Structure, and Types of Leaves
- Functions, Parts, and Types of Flowers
- Monoecious vs. Dioecious Plants
- **Worksheet 4 Due at Beginning of Class**

February 13 – Unit III: Plant Science Basics Part B - *Read Text Book, pages 41-48*

- Plant Processes
- Plant Classifications and Nomenclature
- Scientific System of Classification and Naming
- **Worksheet 5 Due at Beginning of Class**

February 20 – Unit IV: Plant Growth Part A - *Read Text Book, pages 49-62*  
- Environmental Effects  
- Growing Media and Containers  
- **Worksheet 6 Due at Beginning of Class**

February 27 – **Mid-Term Exam**  
- Practicum

**March 5** – Unit IV: Plant Growth Part B - *Read Text Book, pages 63-78*  
- Irrigation  
- Nutrients  
- Fertilizer  
- **Worksheet 7 Due at Beginning of Class**

March 12 – Unit V: Plant Propagation - *Read Text Book, pages 79-87*  
- **Worksheet 8 Due at Beginning of Class**

**March 15-19 - LAB Week (no Day classes; AIM classes meet)**

March 26 – Unit VI: Plant Health - *Read Text Book, pages 89-106*  
- Greenhouse Pests and Diseases  
- Pest Control  
- Pesticide Use and Safety  
- **Worksheet 9 Due at Beginning of Class**

April 2 – **Practicum Begins**  
April 9 – Practicum  
April 16 – Practicum  
April 23 – Practicum  
April 30 – Practicum

## **PROFESSOR'S CONTACT INFORMATION**

### **Joe Lieway**

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