ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Natural Sciences and Business

COURSE: AGR 1220 Introduction to Cannabis Production

Date: Spring 2023

Credit Hours: 3

Complete all that apply or mark "None" where appropriate:

Prerequisite(s): None

Enrollment by assessment or other measure? ☐ Yes ☒ No
If yes, please describe:

Corequisite(s): None

Pre- or Corequiste(s): None

Consent of Instructor: ☐ Yes ☒ No

Delivery Method: ☒ **Lecture**   **3 Contact Hours** (1 contact = 1 credit hour)
                  ☐ **Seminar**   **0 Contact Hours** (1 contact = 1 credit hour)
                  ☐ **Lab**   **0 Contact Hours** (2-3 contact = 1 credit hour)
                  ☐ **Clinical** **0 Contact Hours** (3 contact = 1 credit hour)

Offered: ☒ **Fall**   ☐ **Spring**   ☐ **Summer**

CATALOG DESCRIPTION and IAI NUMBER (if applicable):
This course is an introduction to the production of cannabis and its related products. Content will focus on the anatomy and physiology of the cannabis plant, production and processing methods, and the various uses for and products of cannabis. The course will also explore the economics and legal issues associated with cannabis production, as well as professional opportunities in the cannabis industry.

ACCREDITATION STATEMENTS AND COURSE NOTES:
None

COURSE TOPICS AND CONTENT REQUIREMENTS:
1. Introduction
   a. The cannabis plant
   b. Types of cannabis plants
   c. Controversiality of cannabis
   d. The criminalization and suppression of cannabis
   e. The decriminalization and resurrection of industrial, medicinal, and recreational cannabis
   f. The interface of cannabis science and public policy
2. History
   a. The family tree and pre-human antiquity of Cannabis sativa
   b. Uncertainty regarding the early historical association of Cannabis and people
   c. Location of the pre-human distribution range
   d. The "camp-follower" model of early domestication of Cannabis sativa
   e. Earliest geographical centers of the four kinds of domesticated Cannabis sativa
   f. Old world geography and migrations of fiber, oilseed, and flower classes of Cannabis sativa
3. Botany
   a. Anatomy and morphology
   b. Sex expression
   c. Sexual reproduction
   d. Seeds
   e. Photoperiodism
   f. Phytoremediation
4. Cannabinoids
   a. THC
   b. CBD
   c. CBG, CBN, etc.
   d. Terpenes
   e. Flavonoids
5. Hemp production systems and their agronomic practices
   a. Fiber
   b. Grain
   c. Dual purpose
   d. CBD
   e. Economics of production
6. Medical use
   a. Drug delivery systems
   b. The endocannabinoid system
   c. Fundamentals of medical plant production

7. Recreational use
    a. The cannabis experience
    b. Health risks
    c. Plant production
    d. Ethical perspectives of decriminalization and legalization of recreational cannabis
8. Processing & extraction
    a. Fiber extraction technologies
    b. Oil extraction and processing technologies
    c. Technologies for preparing cannabis drugs
9. Legal issues at the federal and state levels
    a. Licensing
    b. Compliance
    c. Packaging and labeling
10. Industry overview
    a. Careers
    b. Market production models
    c. Market challenges

INSTRUCTIONAL METHODS:
- Lecture
- Discussion
- Guest speakers
- Field trips

EVALUATION OF STUDENT ACHIEVEMENT:
A= 90-100
B= 80-89
C= 70-79
D= 60-69
F= 0-59

Exams: 50%
Quizzes: 30%
Homework: 20%

INSTRUCTIONAL MATERIALS:
Textbooks
Small, Ernest. Cannabis: A Complete Guide. CRC Press, 2017. ISBN: 978-1-4987-6163-5
Williams, D.W. Industrial Hemp as a Modern Commodity Crop. American Society of Agronomy, 2019. ISBN: 978-0-89118-632-8
Cervantes, Jorge. The Cannabis Encyclopedia. Van Patten Publishing, 2015. ISBN: 978-1-8788-2334-2
Green, Greg. The Cannabis Grow Bible. Green Candy Press. 2017. ISBN: 978-1-9378-6636-5

Thomas, Mel. Cannabis Cultivation: A Complete Grower's Guide. Green Candy Press.
     2012. ISBN: 978-1-9311-6083-4

Resources
Industrial Hemp Production. University of Illinois Extension.
https://extension.illinois.edu/jsw/industrial-hemp-production

UK Industrial Hemp Agronomic Research. University of Kentucky.
https://hemp.ca.uky.edu

Agricultural and Resource Economics. University of Tennessee Institute of Agriculture.
https://ag.tennessee.edu/arec/Pages/budgets.aspx

Herer, Jack. The Emperor Wears No Clothes. 12th ed., AH HA Publishing, 2010.

LEARNING OUTCOMES AND GOALS:
Institutional Learning Outcomes
☐ 1) Communication – to communicate effectively;
☒ 2) Inquiry – to apply critical, logical, creative, aesthetic, or quantitative analytical
        reasoning to formulate a judgement or conclusion;
☐ 3) Social Consciousness – to understand what it means to be a socially conscious
        person, locally and globally;
☐ 4) Responsibility – to recognize how personal choices affect self and society.

Course Outcomes and Competencies
1. Identify and discuss anatomical and morphological features of the cannabis plant
2. Differentiate between the various uses of the cannabis plant and the agricultural and
    horticultural production practices associated with each
3. Describe the various end use products of cannabis and their extraction and
    processing methods
4. Differentiate the properties and uses of cannabinoids
5. Identify and discuss state and federal laws, regulation, and licensing of cannabis
    businesses
6. Identify and discuss the economic principles of cannabis production
7. Identify professional opportunities and career paths in the cannabis industry