ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Natural Sciences and Business

COURSE: AGR 1220 Introduction to Cannabis Production

Date: Spring 2020

Credit Hours: 3

Prerequisite(s): None

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)**
☐ **Online**		
☐ **Blended**		

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

IAI Equivalent –***Only for Transfer Courses***-go to *http://www.itransfer.org*:

CATALOG DESCRIPTION:
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, hemp and marijuana production and processing methods, and the various uses for and products of hemp and marijuana. The course will also explore the economics and legal issues associated with hemp and marijuana production, as well as professional opportunities in the cannabis industry.

GENERAL EDUCATION GOALS ADDRESSED

[See last page for Course Competency/Assessment Methods Matrix.]

Upon completion of the course, the student will be able:

[Choose up to three goals that will be formally assessed in this course.]

☒ To apply analytical and problem solving skills to personal, social, and professional issues and situations.
☐ To communicate successfully, both orally and in writing, to a variety of audiences.
☐ To construct a critical awareness of and appreciation for diversity.
☐ To understand and use technology effectively and to understand its impact on the individual and society.
☐ To develop interpersonal capacity.
☐ To recognize what it means to act ethically and responsibly as an individual and as a member of society.
☐ To recognize what it means to develop and maintain a healthy lifestyle in terms of mind, body, and spirit.
☐ To connect learning to life.

EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES:

[Outcomes related to course specific goals. See last page for more information.]

Upon completion of the course, the student will be able to:

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

MAPPING LEARNING OUTCOMES TO GENERAL EDUCATION GOALS

[For each of the goals selected above, indicate which outcomes align with the goal.]

Goals	Outcomes
First Goal	
To apply analytical and problem solving skills to personal, social, and professional issues and situations.	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

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 and marijuana 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 marijuana
    a. Medical marijuana drug delivery systems
    b. The endocannabinoid system
    c. Fundamentals of medical marijuana plant production
7. Recreational use marijuana
    a. The cannabis experience

b. Health risks
c. Plant production
d. Ethical perspectives of decriminalization and legalization of recreational marijuana

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

INSTRUCTIONAL MATERIALS:

Small, Ernest. *Cannabis: A Complete Guide*. CRC Press, 2017. ISBN: 978-1-4987-6163-5

STUDENT REQUIREMENTS AND METHODS OF EVALUATION:

A= 90-100
B= 80-89
C= 70-79
D= 60-69
F= 0-59

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

OTHER REFERENCES

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.

Course Competency/Assessment Methods Matrix

(Dept/# Course Name)	Assessment Options																																
For each competency/outcome place an "X" below the method of assessment to be used.	**Assessment of Student Learning**	Article Review	Case Studies	Group Projects	Lab Work	Oral Presentations	Pre-Post Tests	Quizzes	Written Exams	Artifact Self Reflection of Growth	Capstone Projects	Comprehensive Written Exit Exam	Course Embedded Questions	Multi-Media Projects	Observation	Writing Samples	Portfolio Evaluation	Real World Projects	Reflective Journals	Applied Application (skills) Test	Oral Exit Interviews	Accreditation Reviews/Reports	Advisory Council Feedback	Employer Surveys	Graduate Surveys	Internship/Practicum /Site Supervisor Evaluation	Licensing Exam	In Class Feedback	Simulation	Interview	Written Report	Assignment
Assessment Measures – Are direct or indirect as indicated. List competencies/outcomes below.	**Direct/ Indirect**	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	I	I	I	I	D	D	D						
Identify and discuss anatomical and morphological features of the cannabis plant								X	X				X																				X
Differentiate between the various uses of the cannabis plant and the agricultural and horticultural production practices associated with each								X	X				X																				X
Describe the various end use products of cannabis and their extraction and processing methods								X	X				X																				X
Differentiate the properties and uses of cannabinoids								X	X				X																				X

Identify and discuss state and federal laws, regulation, and licensing of cannabis businesses								X	X				X																		X
Identify and discuss the economic principles of cannabis production								X	X				X																		X
Identify professional opportunities and career paths in the cannabis industry								X	X				X																		X