

**Agri. Bio-Technology
020180**

<p>Course Description: Biotechnology in agriculture is designed to emphasize the interrelationship of science and technology and the impact of this technology on agriculture and agricultural products. The curriculum includes: career opportunities in the agricultural biotechnology industry; basic concepts about biotechnology; how genetic information is transferred and changed by engineering; opportunities, impacts and public issues concerning biotechnology; the processes and applications of biotechnology in plant and animal science; and the applications of microbial biotechnology in agriculture. Content will be enhanced with appropriate applied science laboratory activities and computer applications. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.</p>	
NATIONAL AFNR STANDARDS	Content/Process statements followed by # codes in Bold = KOSSA Standards, <i>Italic = Academic Expectations</i>
<p>CS.03</p> <p>BS.03</p> <p>BS.01</p> <p>BS.01</p> <p>BS.02</p> <p>BS.02</p> <p>BS.02</p> <p>ABS.03</p> <p>CS.01</p> <p>CS.11</p>	<p>Students will:</p> <ul style="list-style-type: none"> • demonstrate employability and social skills relative to the career cluster.AA6, AA8, AA9, AA10, AA12, AA15, EA2, EA3, EA6, 1.1, 2.36, 2.38 • investigate basic concepts about biotechnology in agriculture.OA1, OA2, OA4, OA6, OI1, 1.16, 2.7, 2.8 • analyze how genetic information is transferred and changed.OH4, OH5, OH6, OH7, OH8, OH9, OI1, OI2, OI3, 2.4, 2.13, 2.2 • debate opportunities, impacts, and public issues concerning biotechnology.OA4, OA5, OA6, OA7, OA8, OA9, OB1, OB2, OB3, OC1, OC2, OC4, 2.1, 2.16, 2.18 • investigate the processes and applications of biotechnology in plant science.OE1, OE2, OE3, OG1, OG2, OK1, OK2, OK3, 1.10, 5.1, 5.3 • investigate the processes and applications of biotechnology in animal science.OE1, OE2, OE3, OG1, OG2, OI2, OI3, OJ1, OJ2, OK4, OK5, OK6, 1.10, 5.1, 5.3 • investigate the applications of microbial biotechnology in agriculture.OH3, OH16, OH17, OK10, OK11, 1.10, 5.1, 5.3 • maintain records on a supervised agricultural experience programs and be able to summarize and analyze results in making financial decisions.EC2, EC3, EC4, AA16, 1.11, 2.13, 2.18 • utilize activities of FFA as an integral component of course content and leadership development.AA12, AA13, AA15, 1.12, 2.16, 2.37 • apply science, math and communication skills within the technical content.AB1, AB2, AB3, AB4, AB5, AB6, AB7, AB8, AB9, AC4, AC5, AC6, AC7, AC8, AA13, 1.9, 1.10, 1.12
CONNECTIONS	
<ul style="list-style-type: none"> • PROGRAM OF STUDIES – REVISED 2006 • KENTUCKY OCCUPATIONAL SKILL STANDARDS (KOSSA: Agribiotechnology Area)) • <i>ACADEMIC EXPECTATIONS</i> • SECRETARY’S COMMISSION ON ACHIEVING NECESSARY SKILLS (SCANS) 	

- FFA CONNECTIONS: Agriscience Fair, Agriscience Student Awards, Emerging Ag Technology Proficiency, Food Science, Environmental Science, AG Issues CDE's, Public and Extemp. Speaking