

INFORMATICS (INF)

INF 101. Introduction to Online Learning. (1 Credit)

(1) A. Formerly CSC 101. Prepare students to take online courses at EKU including the use of the Blackboard learning environment. Help students acquire basic skills to be successful in online learning. Credit will not be awarded to students who have credit for CSC 101.

INF 104. Computer Literacy with Software Applications. (3 Credits)

(3) A. Formerly: CSC 104. A non-technical survey of computer history, hardware, and software. Implications of the use and misuse of computers. The effect of computers on society. Software applications such as word processors, spread sheets, databases, and graphics. Credit will not be awarded to students who have credit for CSC 104. 3 Lec (1 lab when taught in large lecture sections).

INF 105. Software Application Topics. (1-3 Credits)

(1-3) A. Formerly CSC 105. Selected topics in software applications. Topics vary with offering. May be retaken with advisor approval to a maximum of nine hours provided topics are different.

INF 110. Introduction to the Internet. (1 Credit)

(1) I, II. Formerly CSC 110. Introduction to the internet and the Internet processing tools. The course emphasizes the use of the World Wide Web as an information broadcasting and retrieval tool. Credit will not be awarded to students who have credit for CSC 110.

INF 120. Introduction to Multimedia. (3 Credits)

(3) I, II. Formerly CSC 120. Introduction to multimedia technology and computerized visual communication. Topics include video editing, media file processing, video streaming, computer graphics. Credit will not be awarded to students who have credit for CSC 120.

INF 123. Exploring Virtual Worlds. (3 Credits)

(3) A. Formerly: CSC 123. Exploration of the technologies used in virtual environments and their effects on society. Review of technology driving virtual environments with historical context. Emerging technology. Social/economical consequences. Possible Future outcomes through new technologies and science fiction. Credit will not be awarded to students who have credit for CSC 123.

INF 130. 3D Printing. (3 Credits)

A. Exploration of the technologies used in the 3D printing process. Development of skills needed to generate content for 3D printing. Software-driven solutions to 3D printing issues. Emerging technology, Social/Economic consequences. Credit will not be awarded to students who have credit for Special Topics course: 3D printing.

INF 301. Current Topics in Informatics:____. (3 Credits)

(3) A. Formerly CSC 301. Prerequisite: A grade of "C" or higher in INF 104, CIS 212, or or equivalent. Introduction to contemporary topics in informatics. May be retaken to a maximum of six hours provided the topics are different.

INF 307. Cyberspace Security and Ethics. (3 Credits)

(3) A. Formerly CSC 307. Prerequisite: A grade of "C" or higher in ENG 102, ENG 105 (B), or HON 102. A non-technical survey of computing, including computers' effect on society, computer crime, viruses and other threats, and self-protection in an online environment. Credit will not be awarded to students who have credit for CSC 307.

INF 314. MS Office & Data Analysis. (3 Credits)

(3) A. Formerly CSC 314. Prerequisite: "C" or higher in INF 104, CIS 212 or equivalent. Designing advanced Excel spreadsheets and Access databases to manage data problems with an emphasis on data calculations, data analysis, and organization of data.

INF 318. Mobile Device Security & Privacy. (3 Credits)

(3) A. Formerly CSC 318. Prerequisite: A grade of "C" or higher in ENG 102, 105(B), or HON 102. Introductory course on mobile device security and privacy. Topics include mobile devices including smart phones, tablets and others; mobile device threats; mobile device security including planning and implementation; mobile device privacy. Credit will not be awarded to students who have credit for CSC 318.

INF 321. Computer Forensics. (3 Credits)

(A). Formerly CSC 321. Prerequisite: A grade of "C" or higher in ENG 102, 105(B) or HON 102. Introductory course on computer forensics. Topics include computer forensics concept, digital evidence, law and regulations, computer forensics lab, computer forensic investigation, digital forensics report, court testimony, ethics and codes to expert witness. Credit will not be awarded to students who have credit for CSC 321.

INF 322. Computer Forensics II. (3 Credits)

(A). Formerly CSC 322. Prerequisite: CSC 321 with a minimum grade of C, or INF 321 with a minimum grade of C. Introductory course on computer forensics. Topics include digital evidence, digital forensics investigation procedure, evidence identification, data acquisition, crime scene processing, digital forensic tools, quality assurance, evidence processing, investigation report, and court testimony. Credit will not be awarded to students who have credit for CSC 322.

INF 330. 2D Animation. (3 Credits)

A. Prerequisite: A grade of "C" or higher in ART 100, BEM 240, INF 120, CSC 140, or TEC 190. Introduction to 2D animation for use in animation and games. Graphical tablets will be used to learn various digital drawing techniques and key-framing, onion-skinning, rigging will be used for animation generation leading to sprite-sheet assets. Credit will not be awarded to students who have credit for Special Topics course: 2D Animation.

INF 391. Game Level Design for _____. (3 Credits)

(3) A. Prerequisite: a grade of "C" or higher in INF 130 or INF 330 or ART 100 or MUS 290. Introduction to game asset creation, texture painting, 3D modeling, 2D assets, visual programming, and level design. May be retaken to a maximum of 12 hours provided the covered game genres are different.

INF 430. Digital Sculpting. (3 Credits)

A. Prerequisite: A grade of "C" or higher in ART 100, INF 130, INF 330, CSC 315. Navigate and utilize 3D sculpting tools. Create animation ready meshes and game ready models and textures. Learn appropriate terminology and vocabulary in the discussion of 3D assets. Credit will not be awarded to students who have credit for Special Topics course: Digital Sculpting.

INF 495. Independent Work. (1-3 Credits)

Prerequisite: A grade of "C" or higher in ENG 102, 105 (B), or HON 102, and departmental approval. Directed study/research on a problem or area chosen in consultation with the instructor. Final paper required. Student must have the independent study proposal form approved by faculty supervisor and department chair prior to enrollment. May be retaken to a maximum of 12 hours.

INF 507. Special Topics in Informatics:____. (1-3 Credits)

(1-3) A. Prerequisite: Departmental approval. topics vary with offering. May be retaken to a maximum of six hours with advisor approval, provided the topics are different.

INF 511. Principles of Game Design and Game Theory. (3 Credits)

A. Fundamentals of designing both digital and non-digital games. In-depth study of the nature of "Fun," design philosophies, choice, motivation, flow theory, types of decisions, and reward in gameplay systems. Additional topics related to gamification, monetization, and serious games also covered.

INF 512. Game Production and Publication. (3 Credits)

A. Review of historical and current aspects of the games industry from AAA to indie. Industry operations, Employment, Founding your own studio, Funding, Freelancing, the Role of Influencers (Twitch, Youtube, social media), Platforms, IP protection.

INF 513. Online Game and Application Design. (3 Credits)

A. Introduction to the principles of design for online games applications. Topics include game balance, competition, cooperation, detecting exploits and cheating, security, privacy, social structures, administration, community management, online harassment, and client-server communication. Credit will not be awarded for both INF 513 and INF 713 .

INF 515. Special Topics in Gaming:____. (3 Credits)

(3) A. Topics vary with offering. May be retaken to a maximum of six hours with advisor approval, provided the topics are different. Credit will not be awarded to students who have credit for INF 507: Special Topics in Informatics. Credit will not be awarded for both INF 515 and INF 715.

INF 518. Principles of Cybersecurity. (3 Credits)

A. Pre-requisite: A minimum grade of "C" in CSC 210 or CSC 310. This course discusses cybersecurity principles. Topics include security governance, risk assessment, security, people, information, and physical asset management; system development, access, and management; threat and incident management; business continuity; security monitoring and improvement.

INF 707. Special Topics in Informatics_. (1-3 Credits)

(1-3) A. Prerequisite: departmental approval. Topics vary with offering. May be retaken to a maximum of six hours with advisor approval, provided the topics are different.

INF 711. Princ of Game Des and Gam Theo. (3 Credits)

A. Fundamentals of designing both digital and non-digital games. In depth study of the nature of "Fun," design philosophies, choice, motivation, flow theory, types of decisions, and reward in gameplay systems. Additional topics related to gamification, monetization, and serious games also covered.

INF 712. Game Production and Publicatio. (3 Credits)

A. Review of historical and current aspects of the games industry from AAA to indie. Industry operations, Employment, Founding your own studio, Funding, Freelancing, the Role of Influencers (Twitch, Youtube, social media), Platforms, IP protection.

INF 713. Online Game and App Design. (3 Credits)

Introduction to the principles of design for online games and applications. Topics include game balance, competition, cooperation, detecting exploits and cheating, security, privacy, social structures, administration, community management, online harassment, and client-server communication. Credit will not be awarded for both INF 713 and INF 513 .

INF 715. Special Topics in Gaming:____. (3 Credits)

A. Topics vary with offering. May be retaken to a maximum of six hours with advisor approval, provided the topics are different. Credit will not be awarded to students who have credit for INF 707: Special Topics in Informatics. Credit will not be awarded for both INF 715 and INF 515.

INF 718. Principles of Cybersecurity. (3 Credits)

A. Pre-requisite: departmental approval. This course discusses cybersecurity principles. Topics include security governance, risk assessment, security, people, information, and physical asset management; system development, access, and management; threat and incident management; business continuity; security monitoring and improvement.