

## Fall 2020 Course Descriptions as of 04/02/2020 08:12 PM

Information in Browse Course Catalog is subject to change. Information is term specific. Please refer to the appropriate term when searching for course content. Key to Course Descriptions may be found at: [http://rcs.registrar.arizona.edu/course\\_descriptions\\_key](http://rcs.registrar.arizona.edu/course_descriptions_key).

### Network Administration (NETV)

#### **NETV 370: Introduction to Network Design and Architecture** (3 units)

**Description:** An introduction to modern network design and architecture. Students will learn modern network design and network architecture concepts, security in modern networks, the cost of modern networks, software defined networks (SDN), network virtualization framework (NVF), quality of service (QoS) and quality of experience concepts (QoE), Internet of Things (IoT) and Cloud infrastructures.

**Grading basis:** Regular Grades

**Career:** Undergraduate

**Course Components:** Lecture Required

**Also offered as:** INFV 370

**Course typically offered:** South Campus: Fall

Online Campus: Fall

Distance Campus: Fall

**Recommendations and additional information:** CYBV 326 or BASV 326.

**Honors Course:** Honors Contract

**Honors Course:** Honors Contract

#### **NETV 371: Network Security Principles** (3 units)

**Description:** In-depth coverage of current risks and threats to an organization's information including methods of addressing the safeguarding of these critical assets. Coverage includes theoretical and historical background necessary to understand the various risks and hands on techniques for working in the security field.

**Grading basis:** Regular Grades

**Career:** Undergraduate

**Course Components:** Lecture Required

**Equivalent to:** RNC 371

**Course typically offered:** South Campus: Spring

Online Campus: Spring

Distance Campus: Spring

**Recommendations and additional information:** Students must have been accepted into the UAS BAS program.

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

**May Be Offered** Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

**NETV 372: Application and Theory of Network Administration** (3 units)

**Description:** Theories and applications of network architecture, switching, routing, algorithms, protocols, infrastructure hardware, cable plant, security, and network management.

**Grading basis:** Regular Grades

**Career:** Undergraduate

**Campus:** University of Arizona South

**Course Components:** Lecture Required

**Equivalent to:** RNC 372

**Course typically offered:** South Campus: Fall

**Recommendations and additional information:** Students must have been accepted into the UAS BAS program.

**NETV 374: Routing: Theories and Applications** (3 units)

**Description:** Course focuses on both theoretical and application concepts of IP addressing techniques, intermediate routing protocols, command line interface configuration of switches, and VLANs.

**Grading basis:** Regular Grades

**Career:** Undergraduate

**Course Components:** Lecture Required

**Equivalent to:** RNC 374

**Course typically offered:** South Campus: Fall

**Recommendations and additional information:** Students must have been accepted into the UA South BAS program.

**NETV 375: Advanced Routing and WAN Technologies** (3 units)

**Description:** Course focuses on both theoretical and application concepts advanced IP addressing techniques including Network address translation, port address translation, and DHCP. Wan terminology and technology to include: PPP, ISDN, Frame Relay and overall network management.

**Grading basis:** Regular Grades

**Career:** Undergraduate

**Course Components:** Lecture Required

**Equivalent to:** RNC 375

**Course typically offered:** South Campus: Spring

**Recommendations and additional information:** RNCV 374. Students must have been accepted into the UA South BAS program.

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

**May Be Offered** Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

**NETV 378: System Administration** (3 units)

**Description:** Course covers the theory and application of system administration from a UNIX and Windows perspective, including installation, management, optimization and security. Case studies of industry examples are used as applications to reinforce the discussed theories.

**Grading basis:** Regular Grades

**Career:** Undergraduate

**Course Components:** Lecture Required

**Equivalent to:** INFV 378

**Also offered as:** INFV 378

**Course typically offered:** South Campus: Spring, Summer

Online Campus: Spring, Summer

Distance Campus: Spring, Summer

**Recommendations and additional information:** CYBV326 or BASV326 or consent of instructor.

**NETV 379: Cloud Computing** (3 units)

**Description:** Course covers the theory and application of cloud computing, including Cloud Computing network design and connectivity, server management, best-practices, security, and provider service level agreements. Case studies of industry examples are used as applications to reinforce the discussed theories.

**Grading basis:** Regular Grades

**Career:** Undergraduate

**Course Components:** Lecture Required

**Equivalent to:** INFV 379

**Also offered as:** INFV 379

**Course typically offered:** South Campus: Fall, Summer

Online Campus: Fall, Summer

Distance Campus: Fall, Summer

**Recommendations and additional information:** CYBV326 or consent of the instructor.

**NETV 382: Network Defense, Incident Response & Disaster Recovery** (3 units)

**Description:** Provides network defenders with the skills to respond quickly to incidents and recover critical data in the event of a disaster. Students will learn the Active Cyber Defense Cycle (ACDC) and apply the concepts of cyber intelligence and network security monitoring towards the response and defense of networks.

**Grading basis:** Regular Grades

**Career:** Undergraduate

**Course Components:** Lecture Required

**Course typically offered:** South Campus: Fall

Online Campus: Fall

Distance Campus: Fall

**Recommendations and additional information:** NETV371 or Consent of Instructor.

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

**May Be Offered** Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

**NETV 404: The Business Function** (3 units)

**Description:** This course focuses on broadening each student's understanding of business as well as the business goals and objectives needed to be successful in the workplace. It also emphasizes critical thinking and applying this process to the corporate world.

**Grading basis:** Regular Grades

**Career:** Undergraduate

**Course Components:** Lecture Required

**Equivalent to:** RNC 404, RNCV 404

**Also offered as:** LDRV 404

**Course typically offered:** South Campus: Fall

Online Campus: Fall

Distance Campus: Fall

**Home department:** Division of Commerce & BAS Degrees

**NETV 477: Advanced Computer Forensics** (3 units)

**Description:** An advanced forensics course that provides students an in-depth knowledge of network forensics, network flow analysis, network intrusion detection systems, event reconstruction and memory forensics for Windows, Linux and MAC operating systems.

**Grading basis:** Regular Grades

**Career:** Undergraduate

**Course Components:** Lecture Required

**Course typically offered:** South Campus: Spring

Online Campus: Spring

Distance Campus: Spring

**Recommendations and additional information:** INFV 320 and CYBV 388 or Consent of Instructor.

**Honors Course:** Honors Contract

**Honors Course:** Honors Contract

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-CC represents a Correspondence Course offering

**May Be Offered** Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

**NETV 479: Advanced Cloud Computing: Applications and Best Practices** (3 units)

**Description:** NETV 479 reviews theory and application of cloud computing. It builds upon this and delves into advanced cloud computing concepts including virtualization, containerization, microservices, cloud storage and programming, software defined architectures (compute, storage and networking), and advanced cloud security. There is a significant application of hands-on exercises to give the student a practical understanding of these advanced topics.

**Grading basis:** Regular Grades

**Career:** Undergraduate

**Course Components:** Lecture Required

**Also offered as:** INFV 479

**Course typically offered:** South Campus: Fall, Spring

Online Campus: Fall, Spring

Distance Campus: Fall, Spring

**Recommendations and additional information:** Prerequisite: NETV/INFV 379 and basic programming skills or consent of Instructor.

**Field trip:** none

**Honors Course:** Honors Contract

**Honors Course:** Honors Contract

**NETV 493: Internship** (1 - 3 units)

**Description:** Specialized work on an individual basis, consisting of training and practice in actual service in a technical, business, or governmental establishment.

**Grading basis:** Alternative Grading: S, P, F

**Career:** Undergraduate

**Course Components:** Independent Study Required

**Repeatable:** Course can be repeated a maximum of 6 times.

**Course typically offered:** South Campus: Fall, Spring

**Recommendations and additional information:** Instructor consent required.

**Enrollment requirement:** Must be a UA South student.

**Student Engagement Activity:** Professional Development

**Student Engagement Competency:** Professionalism

-SA represents a Student Abroad & Student Exchange offering

-CC represents a Correspondence Course offering

**May Be Offered** Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.

**NETV 498: Senior Capstone** (3 units)

**Description:** This course is an engaged learning course, it focuses on developing project management skills for graduating seniors in the Network Operations BAS degree program and other students interested in project management. It supports a better understanding of project management concepts and methodology. Students will apply these concepts by developing a viable project plan for a non-profit organization or small business in the local community.

**Grading basis:** Regular Grades

**Career:** Undergraduate

**Course Components:** Independent Study      Required

**Course typically offered:** South Campus: Spring

**Recommendations and additional information:** Senior standing required.

**Student Engagement Activity:** Community Partnership

**Student Engagement Competency:** Professionalism

**NETV 498H: Honors Thesis** (1 - 3 units)

**Description:** An honors thesis is required of all students graduating with honors. Students ordinarily sign up for this course as a two-semester sequence. The first semester the student performs research under the supervision of a faculty member; the second semester the student writes an honors thesis. May be repeated for credit 2 times (maximum 3 enrollments).

**Grading basis:** Regular Grades

**Career:** Undergraduate

**Course Components:** Independent Study      Required

**Repeatable:** Course can be repeated a maximum of 3 times.

**Course typically offered:** South Campus: Fall, Spring

Online Campus: Fall, Spring

Distance Campus: Fall, Spring

**Field trip:** none

**Enrollment requirement:** Student must be active in the Honors College.

**Honors Course:** Honors Course

**Honors Course:** Honors Course

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-CC represents a Correspondence Course offering

**May Be Offered** Departments may offer this component in some semesters. See the Schedule of Classes for term-specific offerings.