ITMO 441 SYLLABUS

ITMO 441 Network Application and Operations

Hours: 3 credit hours / 45 contact hours or 3 credit hours / 60 contact hours

Instructor: Kevin Vaccaro

Textbook, title, author, and year: *Linux Administration a Beginner's Guide. 7th edition,* Wale Soyinka, 2016.

Specific course information
  a. **Catalog description:** Students learn the details, use, and configuration of network applications. Currently protocols and application technologies considered include SNMP, SMTP, IMAP, POP, MIME, BOOTP, DHCP, SAMBA, NFS, AFS, X, HTTP, DNS, NetBIOS, and CIFS/SMB. Windows workgroups and domains: file and printer sharing, remote access, and Windows networking are addressed. A research paper in the above topic areas is required.
  b. **Prerequisites:** ITMO 340

Specific goals for the course
  a. Course Outcomes:
  - Implement various protocol services using the Linux operating system
  - Analyze Internet protocols
  - Understand how data flows and moves thru the internet
  - Configuration and operation of Linux as a server
  - Write and submit an original research paper
  b. Course student outcomes:
  At the conclusion of this course, each successful student will able to:
  - Examine the different services available at the Application Level of the TCP/IP model using the Linux operating System
  - Examine each application protocol in detail
  - Use the Linux OS to implement different application services as hands on labs
  - Perform and share original research on a chosen Network related topic

Topics to be covered
  a. Review TCP/IP
  b. DNS
  c. FTP
  d. SMTP/POP/IMAP
  e. HTTP
  f. SSL
  g. SSH/SCP
  h. NFS
  i. Linux Firewall
  j. SAMBA
  k. NIS
  l. LDAP
  m. DHCP

Each ITM Departmental Syllabus *represents a recent offering of the course. The instructor, textbook(s), course outcomes, and course student outcomes/learning objectives may vary in future semesters.*

June 27, 2020