611. Urology Clerkship  
Fall, Winter, Spring, Summer. 1 to 17 credits. May reenroll for a maximum of 34 credits. HM 602.  
Demonstration of clinical manifestations of genitourinary disease, pathogenesis, diagnostic and treatment methods and techniques of diagnosis and management. Familiarity with urologic emergencies and performance of basic urologic skills.

613. Orthopedic Clerkship  
Fall, Winter, Spring, Summer. 1 to 17 credits. May reenroll for a maximum of 34 credits. HM 602.  
Diagnostic and management information and skills, including emergencies, in common orthopedic problems.

614. Neurosurgery Clerkship  
Fall, Winter, Spring, Summer. 1 to 17 credits. May reenroll for a maximum of 34 credits. HM 602.  
A hospital-based experience to provide the student with familiarity with the field and understanding of the contribution of neurosurgery in medicine generally.

615. Ophthalmology Clerkship  
Fall, Winter, Spring, Summer. 1 to 17 credits. May reenroll for a maximum of 34 credits. HM 602.  
Development of skills and knowledge in ophthalmology, neuro-ophthalmology, visual function, and management of problems such as glaucoma, the red eye, and trauma.

616. Thoracic Surgery Clerkship  
Fall, Winter, Spring, Summer. 1 to 17 credits. May reenroll for a maximum of 34 credits. HM 602.  
Problem-solving in thoracic medicine and surgery, also stressing pulmonary physiology, use of diagnostic tools and tests, and indications for surgical procedures.

618. Anesthesiology Clerkship  
Fall, Winter, Spring, Summer. 4 to 16 credits. May reenroll for a maximum of 16 credits. HM 602.  
Introduces common anesthetic agents and provides opportunity for performing anesthetic procedures under faculty supervision.

619. General Surgery Elective Clerkship  
Fall, Winter, Spring, Summer. 4 to 16 credits. May reenroll for a maximum of 16 credits. HM 602 and SUR 608.  
Experiences in clinical general surgery.

630. Emergency Medicine Clerkship  
Fall, Winter, Spring, Summer. 4 to 8 credits. May reenroll for a maximum of 8 credits. SUR 608, H D 608 or MED 608; HM 602.  
Interdepartmental with and administered by the Department of Medicine. Pathophysiology and other basic concepts will be used to explain the development of emergent conditions. Clinical diagnosis and treatment of emergencies seen in community emergency departments will be discussed.

SYSTEMS SCIENCE  
See Electrical Engineering and Systems Science.

TELECOMMUNICATION TC  
College of Communication Arts and Sciences  

120. Telecommunication Media and Society  
Fall, Winter, Spring, Summer. 3(3-0) Nonmajors.  
History, economics, public control, programming, social effects and future of telecommunication; primarily radio and television broadcasting and cable communication. Citizen responsibilities in the development of telecommunication systems and services.

210. Telecommunication Process and Effects  
Fall. 3(3-0) Sophomores, Telecommunication majors.  
Human communication processes and behavior as modified by telecommunication. Functions, audiences, and implications of electronic media on society.

220. History and Economics of Telecommunication  
Winter. 4(3-2) Sophomore TC majors, EC 201; Institutional and cultural development and underlying principles of the telecommunication field, including broadcast programs.

230. Basic Telecommunication Technology  
Spring. 4(3-2) Sophomore TC majors.  
An analysis of technical factors involved in electronic communication: transmission, sound physics and audio technology, light physics, visual behavior and image technology, computer and automation controls, technical telecommunication policy formulation.

280. History of the Motion Picture  
Fall, Winter. 4(2-4) Sophomores.  
Development of the motion picture from its beginning to the present, emphasizing social background and cultural values. Screening of significant films from various periods and countries.

301. Basic Audio Production  
(201) Fall, Winter, Spring, Summer. 4(2-4) TC 210, TC 220, TC 230.  
Basic orientation to audio and radio studios, with laboratory experiences in production, writing and performance.

302. Basic Video Production  
(202) Fall, Winter, Spring. 4(2-4) TC 301.  
Basic orientation to video and television studios, with lab experiences in production, writing and performance.

310. Basic Telecommunication Policy  
Fall, Winter. 4(4-0) TC 210, TC 220, TC 230.  
Essential U.S. public communication policy is treated through rigorous methodological analysis of case and statutory law, public documents and related primary materials.
41. **Advanced Television Directing**
   Fall, Spring. 3(0-6) TC 361; approval of department, and assigned experiences in television directing of programs written and produced by students in TC 351.

42. **Television and Radio in Education**
   Fall, Summer. 4(4-0) Seniors; Juniors with approval of department.
   Uses of broadcast media for instructional purposes, both on the-air and in the classroom. Current usage by institutions of higher learning and public schools, including broadcast and closed-circuit television. Survey of research studies of the effects of educational broadcasting.

43. **Cinema II**
   Spring. 4(1-6) TC 390 and approval of department.
   Theory and practice in film produc tion script, scheduling, shooting, editing, sound. Elaboration and implementation of Cinema I concepts.

44. **International Telecommunication**
   Fall, Summer. 4(4-0)Seniors; Juniors with approval of department.
   Alternative approaches to television, radio, cable, and satellite communication with examples from selected national and international systems. Telecommunication's role in national development. Conflict and cooperation in information distribution and propaganda.

45. **Individual Projects**
   Fall, Winter, Spring. 1 to 6 credits. Junior telecommunication majors and approval of department.

46. **Trends and Issues in Telecommunication**
   Spring. 4(4-0) Approval of department.
   Salient issues and prevailing trends in telecommunication. Consideration of interdependence and relationships within and between telecommunication systems, services, and society.

47. **Telecommunication Policy Analysis**
   Winter. 4(4-0) TC 310, or approval of department.
   Systematic interdisciplinary analysis of major public and private telecommunication policies applying tenets from law, political science, economics, communication, general social science and technology.

48. **Art Instructional Media Laboratory II—Television**
   Fall, Winter, Spring. 4(1-9)
   May reenroll for a maximum of 8 credits. Approval of department, interdepartmental and jointly administered with the Department of Art. Analysis of teaching video tapes and television programs in art. Utilization of television as a medium of artistic expression and communication for application to art education or related fields.

49. **Seminar in Instructional Television**
   Spring. 3(0-6) Approval of department, interdepartmental and administered by the College of Education.
   Television use in instruction, particularly as it concerns the learner, the classroom teacher, the instructional developer and the administration.

50. **The Television Producer**
   Fall, Winter. 4(4-0) TC 361 or approval of department.
   Producer's functions in planning and supervising the execution of television programs, with emphasis on content, organization and use of production techniques to secure the intended audience response.

51. **Media Research I**
   Fall. 4(4-0) Approval of department.
   Intertdepartmental with the Department of Advertising.
   Survey and experimental research designs and their relationship to mass media problems. Applied mass media research, consumer studies, mass media message research.

52. **Media Research II**
   Winter. 4(4-0) TC 831
   Intertdepartmental with the Department of Advertising.
   Data analysis techniques and presentation of mass media research data. Models for the study of mass media research problems.

53. **News and Public Affairs Programming**
   Winter. 4(4-0) Approval of department.
   Analysis of broadcast journalism functions in relation to program design. Writing practice in analytic and editorial forms. Programming responsibilities, legal and ethical restraints.

54. **Broadcast Management: Sales and Promotion**
   Winter. 4(4-0) TC 401 or approval of department.
   Direction and supervision of station sales and marketing personnel in securing and servicing national, regional and local accounts.

55. **Broadcast Management: Profit and Personnel**
   Spring. 4(4-0) TC 401 or approval of department.
   The management of station finances and the motivation of station personnel.

56. **Global Broadcasting: Foreign Domestic Systems**
   Winter. 4(4-0) TC 498 or approval of department.
   Organization, financing, and programming as related to historic and cultural determinants. Special emphasis on the role of broadcasting in developing nations.

57. **Global Broadcasting: International Systems**
   Spring. 4(4-0) TC 498 or approval of department.
   Propaganda and information services. International coordinating organizations such as ITU, UNESCO, Eurovision, and Interscan. Developments in satellite communication.

58. **Public Broadcasting**
   Winter. 4(4-0) TC 489 or approval of department.
   Investigation of the role, organization, and problems of non-profit broadcasting by television and radio, especially systems recognized by federal legislation as an alternate program service to commercial broadcasting in the United States.

59. **Teaching of Broadcasting**
   Summer. 4(4-0) Approval of department.
   Philosophy and objectives of instruction in broadcasting. The undergraduate and graduate curricula. The content of radio and television courses and methods of teaching.

60. **Evaluation and Criticism in Broadcasting and Film**
   Winter. 4(4-0) Approval of department.
   Formulation and application of standards for objective appraisal of the social, ethical and artistic aspects of radio, television and film programs.

61. **Special Problems**
   Fall, Winter, Spring. Variable credit. Approval of department.

62. **Master's Thesis Research**
   Fall, Winter, Spring. Variable credit. Approval of department.

63. **Public Policy in Mass Media II**
   Fall, 4(4-0) Students in the Ph.D. Program in the Mass Media or approval of department.
   Analysis of theory, documents and research in public policy as it relates to mass media including administrative, antitrust, copyright, advertising and communication policy.

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**THEATRE THR**

**College of Arts and Letters**

101. **Theatre Appreciation: Foundations**
    Fall, Winter, Spring. Summer. 3(3-0).
    An overview of theatre arts as a recreational, cultural and social force in contemporary life; fundamentals of play production.

104. **Introduction to Costuming**
    Fall, Winter, Spring. 3(2-2)
    Introductory study of theatrical costuming including theory, pattern, materials, construction and history of dress.

204. **Sophomore Theatre Practicum**
    Fall, Winter, Spring. Summer. 12(0-40)
    THR 104, THR 211 or approval of department. Theatre apprenticeship served in the MSU production program.

211. **Sophomore Acting Practicum I**
    Fall. 4(0-10) THR 101, THR 103 or approval of department.
    Intensive preparation of actor's physical and vocal instrument through exercises and improvisation and scene study.

212. **Sophomore Acting Practicum II**
    Winter. 4(0-10) THR 211 or approval of department.
    Continuation of THR 211.