

Plan of Study

I must admit that it is somewhat by accident that I find myself driven towards the field of Telecommunications Engineering. I always enjoyed reading about technology and know more and more about satellite and wireless. As my knowledge of that field grew, so did my curiosity about the mobile system and the networking.

I pursued a bachelor degree in Electronics and Communications engineering in 2011, then I started my master degree in Telecommunications Engineering in Egypt, but I thought that it would be better for me to take my master degree from George Mason University which provides a very good program in my field.

After I read about the telecommunications program in the catalogue of George Mason University, I made my plan of study. As a start, I have to take 9 credits of required courses. In fall 2014, I supposed to take the TCOM 501 and TCOM 502, but because I already took those two classes in my masters in Egypt, they recommended another two advanced classes for me. So I took TCOM 509 Internet Protocols which is 1.5 credits about IP principles, protocols, and architecture, Internet working, and Internet addressing; and now I am taking TCOM 529 Advanced Internet Protocols which is 1.5 credits about the next generation Internet (IPv6): functionality and features, pros and cons; Internet Applications: DNS, TELNET, FTP, SNMP, HTTP, etc.

In spring 2015, I will be taking TCOM 500 Modern Telecommunications which is 3 credits about comprehensive overview of telecommunications, including current status and future directions. Then, I am going to take TCOM 521 Systems Engineering for Telecommunications Management which 3 credits, and that will be the 9 credits of required courses.

Then, I have to take 6 credits elective core courses, I chose the TCOM 515 Internet Protocol Routing: Lecture and Laboratory course which is 3 credits, and the TCOM 547 Project Management in Telecommunications which is 3 credits. After that I will take 15 credits of courses listed under the following area of emphasis: Emphasis 1, Network Technologies; Emphasis 2, Network Applications; Emphasis 3, Wireless Communications; Emphasis 4, Systems Engineering of Telecommunications. In spring 2015, I chose TCOM 551 Digital Communication Systems which is 3 credits about digital transmission of data, voice, and video; it covers signal digitization, modulation and demodulation, error correction coding, multiple access methods, multiplexing, synchronization, and channel equalization. In fall 2015, I chose two of the Emphasis 3 Wireless Communications which are TCOM 552 Introduction to Mobile Communications System which 3 credits, introduces mobile communication system design and analysis, and required Prerequisite(s): TCOM 500 and 551. In addition to TCOM 607 Satellite Communications which is 3 credits also, it includes introduction to satellite communications systems, historical aspects, orbital mechanics and launchers, satellite components such as payload, orbital maneuvering systems, cooling systems, and antennas.

In spring 2016, I chose from emphasis 3 the TCOM 606 Advanced Mobile Communications Systems which is also 3 credits, includes an introduction to post-second generation cellular systems; benefits and features of third-generation (3G) systems and personal communications services (PCS); review of air interface standards and transmission technologies for mobile and quasi-stationary wireless systems, including cellular networks, satellite networks, indoor systems (Wi-Fi, Personal Local Area Networks, Orthogonal Frequency Multiplexing, Ultra Wide Band technologies).

Finally, after getting my master degree in the telecommunications engineering, I wish I can find a good job in my career, or do my internship with a well-known company and built my future in it. As an international student, after I finish my studying I will get a year for Optional Practical Training (OPT), which is a period during which graduate students with F-1 status who have completed or have been pursuing their degrees for more than nine months are permitted by the United States Citizenship and Immigration Services (USCIS) to work for at most one year on a student visa towards getting practical training to complement their field of studies. F-1 students are usually permitted a total of 12 months of practical training.^[1]

References

"Optional Practical Training." *Wikipedia*. Wikimedia Foundation, 24 Nov. 2014. Web. 24 Nov. 2014.

(Word count: 680)