SIGNAL PROCESSING GRADUATE CERTIFICATE

Banner Code: VS-CERG-SIGP

Academic Advising

MSN 1G5
4400 University Drive
Fairfax, VA 22030

Phone: 703-993-1569
Email: ece@gmu.edu
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The Department of Electrical and Computer Engineering, in conjunction with the Department of Statistics, offers the certificate in signal processing, which provides graduate students with an opportunity to reach a demonstrated level of competence in signal processing. Course work for the graduate certificate can be used for credit toward the MS in Statistical Science as well as the MS in Electrical or Computer Engineering. However, the certificate's primary purpose is to provide a well-defined body of information for students who want to advance or update their knowledge in this fast-moving field, but who do not necessarily wish to complete requirements for the MS degree. The certificate may be pursued concurrently with any of the graduate degree programs in the Volgenau School.

The graduate certificate may only be pursued on a part-time basis.

Admissions & Policies

Admissions

The graduate certificate is open to all students who hold BS degrees in scientific and engineering disciplines from accredited universities and hold graduate status (either degree or non-degree) in the Volgenau School.

Policies

Program Requirements

The certificate is awarded on completion of five graduate courses (15 credits) in signal processing. A cumulative GPA of 3.00 is required, and one course with a grade of C at most may be applied toward the certificate. The certificate courses comprise two foundation courses taken by all students and three elective courses.

Requirements

Certificate Requirements

Total credits: 15

Foundation Courses

ECE 528	Introduction to Random Processes in Electrical and Computer Engineering	3
or STAT 544	Applied Probability	
ECE 535	Digital Signal Processing	3
Total Credits		6

Electives

Select three courses from the following:		9
ECE 537	Introduction to Digital Image Processing (DIP)	
ECE 621	Systems Identification	
ECE 630	Statistical Communication Theory	
ECE 635	Adaptive Signal Processing	
ECE 722	Kalman Filtering with Applications	
or ECE 728	Random Processes in Electrical and Computer Engineering	
ECE 734	Detection and Estimation Theory	
or ECE 738	Advanced Digital Signal Processing	
CSI 978	Statistical Analysis of Signals	
CSI 672	Statistical Inference	
or STAT 652	Statistical Inference	
CSI 678	Times Series Analysis and Forecasting	
or STAT 658	Time Series Analysis and Forecasting	
ECE 751	Information Theory	
or ECE 754	Optimum Array Processing I	
or CS 775	Advanced Pattern Recognition	
Total Credits		9