

## Graduate Council Program Review Summary

*Prepared by: Agamemnon Crassidis, Chair, Graduate Council*

Program Title	Vibrations Engineering	
Originating College	KGC OE	
Program Contact	Ed Hensel	
Degree Type	AC	
SCH New Program	15	
QCH Old Program	16	
NYSED IRP Code:	21314	
HEGIS Code:	0910.00	
Conversion Type	Type 1 Conversion: <input checked="" type="checkbox"/>	Type 2 Conversion: <input type="checkbox"/>
Recommendation	Graduate Council recommends <b>approval</b> of this program	
Responsible Sub-Group	Graduate Council <b>Group B</b>	
Meeting Date/Time	Wednesday, March 30 <sup>th</sup> , 2011/11 am – 12 pm	
Meeting Attendance	Agamemnon Crassidis (KGC OE); Hossein Shahmohamad (COS); Julius Chiavaroli (NTID); Rudy Pugliese (CoLA); Linda Underhill (CAST); Don Wilson (SCB);	
Meeting Location	CST Rm 82-1150	
Checklist Complete?	Yes	
Concerns?	No major concerns sited.	
Discussion	<p>The proposed semester-based program is a near direct conversion from the current quarter-based model (16 QCH to 15 SCH). The current program requires 4 courses total (4 QCH each). Out of the 4, 3 are required core courses: <b>0304-658 Engineering Vibrations, 0304-758 Intermediate Engineering Vibrations, and 0304-840 Signal Processing</b>. The students complete the advanced certificate by choosing one of the following four elective courses: <b>0304-870 Mathematics for Engineers I, 0304-871 Mathematics for Engineers II, 0304-743 Intermediate Control Systems, or 0304-843 Advanced Control Systems</b>. The Advanced Certificate is granted after the completion of the core courses and one elective course. The proposed new Advanced Certificate program is 15 SCH total with 5 required courses (3 SCH each). There are 5 required core courses total (no electives): <b>MECE-658 Introduction to Engineering Vibrations-X (cross-listed with the UG program), MECE-758 Intermediate Engineering Vibrations, MECE-601 Math I for Engineers, MECE-602 Math II for Engineers, and EEEE-778 Digital Signal Processing</b>. The <b>MECE-601 Math I for Engineers</b> course is a semester equivalent for <b>0304-870 Mathematics for Engineers I</b>. The <b>MECE-601 Math I for Engineers</b> course is a semester equivalent for <b>0304-870 Mathematics for Engineers I</b>. The <b>EEEE-778 Digital Signal Processing</b> taught by KGC OE EE department. The rationale for the new update was to make the new proposed program more attractive and thus more marketable. The new program takes advantage of directly applying the courses required for the AC program towards course work completion of either the two Master's programs within Mechanical Engineering. The core courses are the same for the AC and the two Master's Degree programs. The new structure makes</p>	

the AC program attractive to a broader audience of students interested in working towards a Master's degree in Mechanical Engineering and hopefully becomes a feeder for the Master's program. Also, Students who complete the Vibrations Engineering Graduate Focus area part of the Master's program will be directly eligible for the AC in Vibrations Engineering. Three program outcomes are listed: 1) Demonstrate a professional knowledge of mechanical engineering; 2) Demonstrate specialized skill set knowledge of vibrations engineering; and 3) Demonstrate knowledge of contemporary issues in the vibrations engineering area. Also, three program goals were listed: 1) Practice vibrations engineering in support of the design of related engineered systems through the application of the fundamental knowledge, skills, and tools of mechanical engineering; 2) Enhance their skills through formal education and training, independent inquiry; and professional development; and 3) Successfully pursue graduate degrees, if they so choose, at the Master's level. Assessment merits are measured in the required courses.

<b>Vote Tally</b>			
	<b>Approve: 10</b>	<b>Not Approve: 0</b>	<b>Abstain: 0</b>
<b>Signature</b>	Agamemnon Crassidis	<i>Agamemnon Crassidis</i>	