II. Budget Justification

Line A: Equipment

Item	Quantity	Description	Unit price	Univ. Match	LEQSF
		I. UPGRADE OF SPACE TO CLASSROOM STANDARDS			
1	1	**Tables and chairs for workstations**			$4,640
		Justification: Each student work area will need a table designed to accommodate a desktop computer, monitor, and other peripheral hardware. The teacher will use a lecture podium. Further, seating for each student workstation should provide for side-to-side movement to access equipment on the workstation, and adjustable height to balance visually between the computer monitor and the teacher's instruction.			
	8	**72" wide, eye-level, double station computer training tables. HON model DL720-QDP (or equivalent).**	$320		$2,560
	16	**Multifunction chairs with casters and adjustable height. Raynor D500PEB (or equivalent).**	$130		$2,080
2	1	**Equipment storage locker**			$270
		Justification: Storage and security are needed for numerous pieces of equipment (software packages; blank CDs; spare extension, USB, or ethernet cords; owner's manuals or other reference materials; microphones, MIDI keyboards, printer paper, or other expendable materials; etc.) characteristic of a computer classroom.			
	1	**72" x 36" x 18" storage cabinet with five adjustable shelves. HON SC1872-L (or equivalent).**	$270		$270
		II. INSTRUCTIONAL HARDWARE			
3	1	**SMART Classroom Equipment**			$15,760
		Justification: The computer classroom will have all of the features of a SMART Classroom so that Internet examples may be downloaded and projected for instructional purposes.			
		Projection System			
	1	**3200 Lumen Projector, Panasonic PTL780NTU (or equivalent)**	$4,285		$4,285
	1	**Projector Mount Bracket, Chief RPA-570 (or equivalent)**	$155		$155
	1	**Drop Ceiling Mount, Chief CMA440 (or equivalent)**	$120		$120
		Lectern and Lecture Equipment			
	1	**Electric Contour, 69 x 92, Dalite 88368 (or equivalent)**	$875		$875
	1	**VGA Document Camera, ELMO HV5100 (or equivalent)**	$3,000		$3,000
	1	**S-Video VCR, JVC HR3902U (or equivalent)**	$170		$170
	2	**Wall Mounted Speakers, JBL Control 25 (or equivalent)**	$125		$250
	1	**40" Teacher's Podium**	$2,400		$2,400
	1	**Component Switcher, MLS506SA, Extron 60-386-04 (or equivalent)**	$2,150		$2,150
	1	**Control Panel for Component Switcher, Wall Plate MLC206 w/ MLM-Laap, Extron 60-460-02 (or equivalent)**	$915		$915
	1	**Transport control for controling DVD, VCR, and other components. ICRM DV+ (Black), Extron 70-220-02 (or equivalent)**	$270		$270
	1	**Portal for laptop connections. Cable Cubby 300, Extron 60-526-01 (or equivalent)**	$340		$340
	1	**1 In, 2 Out DA, Altinex DA1907SX (or equiv.**	$130		$130

	1	**Miscellaneous adaptors, connectors, cables, accessories, mounting brackets, shelves, and related mounting and finishing hardware, etc.**	**$700**		**$700**
4	1	**Teacher and Student Computer Workstations**			**$32,380**
	Justification: There will be sixteen computers for hands-on student instruction, and one teacher computer workstation. The computers will be networked to a server, and a wireless system will accomodteethernet laptops.				
	1	**Macintosh G5 Teacher Computer**	**$4,400**		**$4,400**
	16	**e Mac Student Computers**	**$1,400**		**$22,400**
	9	**Power Conditioners/Surge Protectors**	**$70**		**$630**
	1	**Macintosh G5 Server**	**$4,400**		**$4,400**
	1	**Wireless System, Airport Base Station**	**$120**		**$120**
	1	**24-Port Gigabit Switch to Network Student and Teacher Computers**	**$430**		**$430**
5	1	**Peripherals for Computer Classroom**			**$1,600**
	1	**Laser printer, 1200 dpi resolution, 11 x 17 paper capability. HP LaserJet 5100 (or equivalent).**	**$1,500**		**$1,500**
	1	**Scanner, 2400 x 2400 resolution, 8.5 x 11.7 paper capability. HP Scanjet 3970 (or equivalent).**	**$100**		**$100**
	Justification: Needed to print hard copies of student works produced using software applications including Finale, Microsoft Office, or Pyware 3D Java. Scanner needed to convert musical scores to Finale notation files.				
6	5	**Marching Band Formation Tablets**	**$510**		**$2,550**
	Justification: Used as a supplement to computer mouse for more efficient data entry. For use with Pyware 3d Java Interactive software (Line B, Item 5).				
7		**Audio-Video Instruction Equipment**		**$14,234**	
	7a 17	**Digidesign Mbox (Pro Tools LE)**	**$475**	**$8,075**	
	Justification: Two-channel audio interface to allow digital recording, editing, and playback of musical ensembles.				
	7b 17	**M-audio ekeys 37 MIDI Keyboards**	**$60**	**$1,020**	
	Justification: Musical Instrument Digital Interface (MIDI) keyboards are for music note entry into sequencing, notation, and recording software.				
	7c 17	**Shure SM 57 Microphones**	**$107**	**$1,819**	
	17	**Cables for Microphones**	**$5**	**$85**	
	17	**Microphone Table Stands**	**$15**	**$255**	
	4	**Microphone Floor Stands**	**$20**	**$80**	
	Justification: Each workstation needs a microphone on a stand to be used for learning to make recordings and connecting the recording microphone with the computer. Also, a smaller number of microphone (floor) stands are needed for students to get group experience in recording solo and ensemble instruments.				
	7d	**Digital Photography**			
	4	**Digital Cameras, Kodak EasyShare CX 4310 (or equivalent)**	**$90**	**$360**	
	Justification: Students take photos, process them with Photoshop Elements, incorporate them into reports and web pages.				
	7e	**Videography**			
	4	**Video Camcorders, Canon ZR-60 (or equiv.)**	**$500**	**$2,000**	
	4	**Camera Tripods**	**$50**	**$200**	
	4	**Camera Bags**	**$25**	**$100**	

4	**Video Camcorder Rechargeable Batteries**	**$10**	**$40**	
1	**Basic Light Kit for Video Recording**	**$200**	**$200**	

Justification: For learning to record ensembles, edit footage on the computer, and create video tape or DVD for purposes of teaching dissemination, or archive.

TOTAL LEQSF EQUIPMENT REQUEST (Year One): Line A, Items 1-6 **$57,200**
TOTAL INSTITUTIONAL MATCH (Year One): Line A, Item 7 **$14,234**

Line B: Software

1	17	**Finale Music Notation Software**	**$210**	**$3,570**

Justification: Industry standard package allows students range of options, from basic exercises for students, to engraving-quality musical scores camera ready for publication.Musical scores may also be saved as web pages for deployment on the Internet.

2	17	**Microsoft Office**	**$140**	**$2,380**

Justification: Students can incorporate work from the course into word processing documents, make web pages, prepare visual presentations, and compute mathematical calculations including budgets, grade scores, attendance, etc.

3	17	**Pro Tools LE**	**$0**	**$0**

Justification: This digital audio and Musical Instrument Digital Interface (MIDI) environment (bundled with free Mbox) is the industry standard program and allows for recording, editing, processing, mixing, and preparing CD recordings.

4	17	**Reason Adapted and Sampletank**	**$0**	**$0**

Justification: Reason and Sampletank come bundled with Pro Tools, allow for students to learn about synthesis and sampling, two technologies important for working with digital audio.

5	2	**Pyware 3D Java Interactive**	**$850**	**$1,700**

Justification: With this marching band drill design software, students can see each member of the band dynamically and individually. Up to 80 drills can be posted to the company's website allowing students to interact with each other and see what students are doing in other schools. Students may post their own drills for others to observe or study. For use with MUS 431- *Marching Band Techniques* in the curriculum for instrumental music education.

6	17	**Photo Shop Elements**	**$45**	**$765**

Justification: This basic package of image editing software is upward compatible with the industry standard professional version for those students who may become interested in pursuing this in more detailing the future. Image processing software allows students to manipulate digital images.

7	17	**Practica Musica Music Theory Software**	**$80**	**$1,360**

Justification: Drill and practice program, students learn how to incorporate software into teaching rudiments and theory of music, monitoring student use and record keeping.

TOTAL SOFTWARE REQUEST: Line B, Items 1 - 7 **$9,775**

Line C: Supplies

1	5	**DV Video Tape**	**$5**	**$25**
		Justification: Used for class projects and course evaluation for class demonstrations and archival purposes.		
2	2	**Spare projector lamps, Panasonic ET-LA780**	**$475**	**$950**
		Justification: Needed for SMART Classroom projector.		

TOTAL SUPPLIES REQUEST: Line C, Items 1 - 2 **$975**

Line D: Shipping/Handling

1	1	**Shipping for SMART Classroom equipment from Line A, Item 3 above**	**$400**	**$400**
2	1	**Shipping for tables**	**$100**	**$100**
3	1	**Shipping for chairs**	**$100**	**$100**
4	1	**Shipping for laser printer**	**$100**	**$100**

TOTAL SHIPPING/HANDLING REQUEST: Line D, Items 1 - 4 **$700**

Line E: Installation

I. FACILITY UPGRADES

1	1	**Upgrade Electrical, Lighting, and HVAC**		**$8,000**
		Justification: The room to be used for the computer classroom has only two electrical outlets. The equipment in the proposal includes sixteen computers, and a host of SMART classroom electrical devices (DVD, projectors, etc.). The existing electrical system will be upgraded in order to accommodate the requirements of the equipment in the grant. Further, the lighting and HVAC in this space was designed for 1964 building codes when the building was constructed. The lighting will need to be enhanced to meet current codes, and the HVAC will need to be upgraded in order to dissipate heat generated by a classroom of students using computers. See APPENDIX detailed expalination.		
2	1	**Equipment Security**		**$2,150**
		Justification: The computer classroom will need to be in a secure area accessible by authorized personnel only. In order to do this, a glass door with side-lites will be installed into what is currently an open passageway. A programmable digital keypad lock will be installed on the door. The glass door will allow the area to be monitored visually. The lock has access codes programmable for specific times for faculty or students, and keeps a record of what codes were used to gain access and when they were used		
	1	**Glass Door Installed**	**$1,500**	**$1,500**
	1	**Programmable Digital Keypad Lock Installed**	**$650**	**$650**
3	1	**Installation of Equipment**	**$2,400**	**$2,400**
		Justification: Computer, projector, camera, DVD and VCR players, etc. described in SMART Classroom equipment (Line A, Item 3) above require professional installation.		

TOTAL INSTALLATION REQUEST: Line E, Items 1 - 3 **$12,550**

Line F: Personnel Training

1	1	No funding is requested for personnel training.	**$0**	**$0**

TOTAL PERSONNEL TRAINING REQUEST: Line F **$0**

Line G: Other Expenses

1	1	**Stipend for graduate assistant**		**$11,500**
		Justification: This would be a technologically oriented graduate student (not necessarily a musician). Needed for installation and maintenance of hardware and software systems. Also needed to assist in developing database of in-service teachers, web-site materials, collection of data from surveys, and development of on-line resources for the new courses.		
2	1	**Stipend for post-doctoral fellow.**	**$35,000**	**$35,000**
		Justification: This would be a doctoral candidate seeking to enter higher education by taking this temporary faculty-staff position for one year. Duties would include developing course materials, developing and implementing an on-line version of MUS 510 for distance education of in-service teachers, and assistnace in collection of data for program evaluation.		

TOTAL OTHER EXPENSES REQUEST: Line G, Items 1 and 2 **$46,500**

Total LEQSF Expenses Request: Lines B, C, D, E, F, G		**$70,500**
Total LEQSF Expenses Request: Line A, Items 1-6		**$57,200**
Total Institutional Match: Line A, Item 7 (Approx. 20% of Line A)	**$14,234**	
Total LEQSF Request:		**$127,700**

EXPLANATION OF MATCHING FUNDS --INSTITUTIONAL MATCHES

Line A	**Equipment- university match of 20%**	**$14,234**
Line B	**Software**	**$0**
Line C	**Supplies**	**$0**
Line D	**Shipping/Handling**	**$0**
Line E	**Installation**	**$0**
Line F	**Personnel Training**	**$500**

SOM contribution toward personnel training for investigators.

Line G **Other Expenses**

1 **1** **Graduate Student Assistance** **$11,500**

Justification: Graduate student with actual musical background will assist investigators with regular music teaching duties thereby providing time for investigators to implement the grant. Principal investigator Himes, project director Kulp, and co-investigator Willey will each have one graduate assistant to assist with one three-hour class. The graduate assistantship is valued at $11,500 per year. One of the School of Music's twelve graduate assistantships will be dedicated to the project for the first year.

2 **1** **Faculty Participation** **$15,184**

Estimated value of faculty time expended in research for this grant:

2a Dr. Himes- 5% of salary ($77,451 x .05 = $3,873)
Time required as principal investigator for administration of the grant.

2b Dr. Kulp- 10% of salary ($39.132 x .10 = $3,913)
Time required as project director.

2c Dr. Willey- 10% of salary ($42,495 x .10 = $4,249)
Time required as co-investigator.

2d Dr. Williams- 5% of salary ($62,977 x .05 = $3,149)
Time required as co-investigator.

3 **1** **Fringe Benefits** **$4,516**

Based on 29.74% of full-time faculty salary portions claimed in Line G, Items 2a, b, and c- Faculty Participation.

TOTAL OTHER EXPENSES: Line G, Items 1, 2, and 3. **$31,200**

Line H. Indirect Costs **$13,728**

1 **1** Based on 44% of salaries and wages listed in Line G, Items 1, 2, and 3.

TOTAL INSTITUTIONAL MATCH: **$59,662**
Lines A, B, C, D, E, F, G, and H