DUAL DEGREE: B.A. IN MUSIC (from Butler University) *PLUS* B.S. IN MOTORSPORTS ENGINEERING (from Purdue University)

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• The B.A. degree in Music requires 124 hours.
--66 hours must be non-music credits.
--40 hours must be 300 or 400-level courses.

• The Dual Degree of Music and Motorsports Engineering will fulfill the following Areas of Inquiry in the Butler University Core Curriculum: Perspectives of the Creative Arts, The Natural World, Texts and Ideas, and Analytical Reasoning. In addition, the B.A. Music curriculum fulfills the Writing Across the Curriculum, Speaking Across the Curriculum, and Social Justice and Diversity requirements of the Butler University Core Curriculum; music majors are exempted from the Butler Cultural Requirement because of the arts event attendance requirements for all arts majors. The Indianapolis Community Requirement is NOT satisfied.

Semester 1			*Semester 2*		
AM 021*	Keyboard Skills 1	1	AM 022*	Keyboard Skills 2	1
**If the major instrument is piano, the student should take AM 031, Piano Major: Keyboard Skills 1 and AM 032, Piano Major: Keyboard Skills 2 instead of AM 021, AM 022, AM 023, and AM 024.*					
AM ____	Major Instrument or Voice	2	AM ____	Major Instrument or Voice	2
ES ____	Major Ensemble	1	ES ____	Major Ensemble	1
MT 101	Music Theory 1	3	MT 102	Music Theory 2	3
MT 111	Aural Skills 1	1	MT 112	Aural Skills 2	1
FYS 101	First Year Seminar	3	FYS 102	First Year Seminar	3
PWB ____	Physical Well Being	1			
CH 105	General Chemistry 1	5	CH 106	General Chemistry 2	5
DD 190	Elementary Engr Design	3	MA 106**	Calculus & Anal. Geo. 1	4

***Math placement test required. There is the possibility that the student will need to take MA 101 (Algebra, 3 cr.) and/or MA 102 (Precalculus, 3 cr.) prior to MA 106 and MA 107.*

TOTAL Credit Hours:	20	20

Semester 3			*Semester 4*		
AM 023	Keyboard Skills 3	1	AM 024	Keyboard Skills 4	1
AM ____	Major Instrument or Voice	2	AM ____	Major Instrument or Voice	2
ES ____	Major Ensemble	1	ES ____	Major Ensemble	1
MT 201	Music Theory 3	3	MT 202	Music Theory 4	3
MT 211	Aural Skills 3	1	MT 212	Aural Skills 4	1
MA 107	Calculus & Anal Geo. 2	4	MA 208	Calculus & Anal. Geo. 3	4
MSTE 27200	Intro to Motorsports	3	ME 27000	Basic Mechanics 1	3
PH 201	Intro to Anal. Physics 1	5	PH 202	Intro to Anal. Physics 2	5

TOTAL Credit Hours:	20	20

Summer

GHS ____	Global and Historical Studies	3
SW ____	The Social World	3

Semester 5

AM ____	Major Instrument or Voice	2
ES ____	Major Ensemble	1
MH 308-SJD	Music in Global Contexts	3
CS 142	Intro to Comp Sc & Prog	3
ME 27400	Basic Mechanics 2	3
MSTE 29700	Modeling for Motorsports	2
MSTE 29800	Computer Mod & Program	2
PH 351-W	Analog Electronics	4

Semester 6

AM ____	Major Instrument or Voice	2
ES ____	Major Ensemble	1
MH 305	Music History 1	2
DD 297	MATLAB	1
MA 334	Differential Equations	3
ME 20000	Thermodynamics	3
MET 33800	Manufacturing Processes	4
MSTE 31200	Business of Motorsports	3
TCM 250	Career Planning for Engineers	1

TOTAL Credit Hours:	20	20

Summer

COM 101	Rhetoric & the Amer Dem Tra	3
GHS ____	Global and Historical Studies	3

Semester 7

AM ____	Major Instrument or Voice	2
ES ____	Major Ensemble	1
ME 330-C	Self-Representation for Mus	1
MH 306-W	Music History 2	3
MSTE 33000	Data Acquisition in Motsp 1	2
MSTE 34000	Dynamic Systems & Signals	3
MSTE 35000	Computer Aided Des & Anal	3
MSTE 47200	Vehicle Dynamics	3
TCM 360-W/C	Comm in Engineering Prac	2

Semester 8

AM ____	Major Instrument or Voice	2
ES ____	Major Ensemble	1
ME 430	E-Portfolio Capstone	0
MH 307	Music History 3	3
ME 27200	Mechanics of Materials	3
ME 31000	Fluid Mechanics	3
ME 32501	Fluids Lab	1
MSTE 31700	Motorsports Practicum 2	1
MSTE 32000	Motorsports Design 1	3
MSTE 33100	Data Acquisition in Motsp 2	3

TOTAL Credit Hours:	20	20

Semester 9

AM ____	Major Instrument or Voice	2
ES ____	Major Ensemble	1
MA 215	Linear Algebra	3
ME 34400	Intro to Engineer Materials	3
ME 48200	Control Systems	3
MSTE 41700	Motorsports Practicum 3	1
MSTE 48200	Motorsports Aerodynamics	3
____	Tech Electives	3
TOTAL Credit Hours:		19

Semester 10

AM ____	Major Instrument or Voice	2
ES ____	Major Ensemble	1
ENGR 20010	Engineering Internship	1
MA 359	Probability and Statistics	3
MSTE 41400	Motorsports Design 2	3
MSTE 42600	Internal Combustion Engines	3
TI 244-PL	Ethics, Good Life & Society	3
____	Tech Electives	3
		19

SUMMARY

REQUIRED MUSIC COURSES:

Note: The 10-semester sequence shown above includes AM 021 and AM 022, 12 additional hours of Applied Music, and 4 additional hours of Major Ensemble, in addition to the courses listed below. While not required in the B.A. degree, most music majors will take these additional classes for placement or scholarship reasons.

AM 023, 024*	Keyboard Skills 3, 4	2
**AM 031 & AM 032 if major instrument is piano*		
AM ____	Major Instrument or Voice	8
ES ____	Major Ensemble	6
ME 330-C	Self-Representation for Musicians	1
ME 430	E-Portfolio Capstone	0
MH 305	Music History and Literature 1	2
MH 306-W	Music History and Literature 2	3
MH 307	Music History and Literature 3	3
MH 308-SJD	Music in Global Contexts	3
MT 101	Music Theory 1	3
MT 111	Aural Skills 1	1
MT 102	Music Theory 2	3
MT 112	Aural Skills 2	1
MT 201	Music Theory 3	3
MT 211	Aural Skills 3	1
MT 202	Music Theory 4	3
MT 212	Aural Skills 4	1
	TOTAL	***44 (plan shows 62 music credits per the note above)***

BUTLER UNIVERSITY CORE CURRICULUM:

FYS 101, 102	First Year Seminar	3, 3
GHS ____	Global & Historical Studies	3, 3
SW ____	The Social World	3
PWB ____	Physical Well Being/Marching Band	1
	TOTAL	***16***

COURSES REQUIRED FOR THE MOTORSPORTS ENGINEERING DEGREE:

CH 105	General Chemistry 1	5
CH 106	General Chemistry 2	5
COM 101	Rhetoric & the Amer Dem Tradition	3
CS 142	Intro to Computer Sci and Prog	3
DD 190	Elementary Engineering Design	3
DD 297	MATLAB	1
ENGR 20010	Engineering Internship	1
MA 106**	Calculus & Anal Geometry 1	4
MA 107**	Calculus & Anal Geometry 2	4
MA 208	Calculus & Anal Geometry 3	4
MA 215	Linear Algebra	3
MA 334	Differential Equations	3
MA 359	Probability and Statistics	3
ME 20000	Thermodynamics	3
ME 27000	Basic Mechanics 1	3
ME 27200	Mechanics of Materials	3
ME 27400	Basic Mechanics 2	3
ME 31000	Fluid Mechanics	3

ME 32501	Fluids Lab	1
ME 34400	Intro to Engineering Materials	3
ME 48200	Control Systems	3
MET 33800	Manufacturing Processes	4
MSTE 27200	Introduction to Motorsports	3
MSTE 29700	Modeling for Motorsports	2
MSTE 29800	Computer Modeling & Program	2
MSTE 31200	Business of Motorsports	3
MSTE 31700	Motorsports Practicum 2	1
MSTE 32000	Motorsports Design 1	3
MSTE 33000	Data Acquisition in Motorsports 1	2
MSTE 33100	Data Acquisition in Motorsports 2	3
MSTE 34000	Dynamic Systems and Signals	3
MSTE 35000	Comp Aided Design and Analysis	3
MSTE 41400	Motorsports Design 2	3
MSTE 41700	Motorsports Practicum 3	1
MSTE 42600	Internal Combustion Engines	3
MSTE 47200	Vehicle Dynamics	3
MSTE 48200	Motorsports Aerodynamics	3
PH 201	Intro to Analytical Physics 1	5
PH 202	Intro to Analytical Physics 2	5
PH 351-W	Analog Electronics	4
TCM 250	Career Planning for Engineers	1
TCM 360-W+C	Comm in Engineering Practice	2
TI 244-PL	Ethics, Good Life & Society	3
Tech Electives		6
	TOTAL	***132***

***Students get credit for MA 106 if they receive a 4 or 5 on the Calculus AB AP exam; they receive credit for both MA 106 and MA 107 if they receive a 4 or 5 on the Calculus BC AP exam with a 4 or 5 on the AB subscore.*