Motorsports UK
Course Syllabus and Summer 2016 Schedule
MSTE 299 (Motorsports Engineering Directed Study)
Summer 2 – June 27 – August 8, 2016
Week in the UK – July 9 – 16, 2016

This is a study abroad class. This class will meet three full days at IUPUI on April 22, July 1, and August 6. The class will meet a week in England July 9 – July 16. All classes are mandatory. Students should regularly check Canvas for messages and record the due dates for assignments on their calendar to be successful in this class.

Course Description:
This is a multidisciplinary course emphasizing motorsports engineering, globalization of racing, and English Culture. This course will look at the success of racing in the UK with an emphasis the Motorsports Valley region of the UK, compare and contrast the ingenuity of motorsports engineers in the UK (i.e Formula One) and motorsports engineers in the US (i.e. Indy Car and NASCAR).

Course Dates 2016:
IUPUI dates are as follows (9:00 – 5:00 pm all days below)
Friday – April 22
Topics covered will include: course overview and expectations; cultural overview; how to write an effective paper; motorsports as a global enterprise; discuss content paper topics, and getting from airport to Hotel in London. Presentations on English culture by members of the Northamptonshire/Indianapolis Sister City Committee, Formula 1 racing by Prof Andy Borme and a brief history of Motorsports in the UK.

Friday – July 1, 2016
Topics covered will include: student presentation for topic they will cover in the content paper, overview of all businesses and race teams that will be visited, discussion on logistics and expectations, discussion of all reading material.

London and Northamptonshire, UK
Saturday – July 9 through Saturday July 16 (see schedule for times)
IUPUI class meeting (9:00 – 5:00 pm)
Friday, August 6
Content paper presentations by all students, discussion about English culture, debrief the trip

Required Textbooks: All books must be read before going to the UK
Motorsports Going Global by Nick Henry, Tim Angus, Mark Jenkins, and Chris Aylett
Formula One: Made in Britain by Clive Couldwell
The Essential Guide to Customs & Culture: Britain by Paul Norgory

Prerequisites: Completion of W131 and prior approval through IUPUI International Programs Office and Professor Borme
Instructor Contact Information:

Lead Instructor:  Professor Andy Borme  
Email:  aborme@iupui.edu  
Phone:  317-274-7082  
Office:  ET201M  

Instructor:  Dr. Terri Talbert-Hatch  
Email:  ttalber@iupui.edu  
Phone:  317-274-8703  
Office:  ET101A  

Course Communication:  
Please email Professor Borme via Canvas or contact via phone.  

Student Learning Outcomes:  

Upon completion of this class students will be able to:  
  - Acquire some knowledge and appreciate of English culture  
  - Acquire knowledge of the history of motorsports in the UK  
  - Compare and contrast motorsports based in the UK and the US  
  - Acquire knowledge about the contributions that UK companies have made to motorsports  
  - Understand the globalization of the motorsports industry  

IUPUI Principles of Undergraduate Learning and Course Learning Objectives/Tasks  

Principle #1 – Core Communication and Quantitative Skills  
The ability of students to express and interpret information, perform quantitative skills, and use information resources and technology – the foundational skills necessary for all IUPUI students to succeed  

Learning Objective/Tasks  
  - Prepare two written papers  
  - Participate and contribute during discussions at business/industry visits  

Principle #2 – Critical Thinking  
The ability of students to engage in a process of disciplined thinking that informs beliefs and actions. A student who demonstrates critical thinking applies the process of disciplined thinking by remaining open-minded, reconsidering previous beliefs and actions, and adjusting his or her thinking, beliefs and actions based on new information.  

Learning Objectives/Tasks  
  - Analyze, integrate, and synthesize what is learned at the businesses/industries visits and understand the importance of their contributions to not only motorsports but the automotive industry in general.  
  - Evaluate diverse views in regards to looking at a different culture and comparing to the one you live in.  
  - Compare and contrast the motorsports industry in the UK and the US
Principle #5 – Understanding Society and Culture
The ability of students to recognize their own cultural traditions and to understand and appreciate
the diversity of the human experience, both within the U.S. and internationally.

Learning Objective/Tasks
- Appreciate the interconnectiveness of global and local communities by recognizing the
differences and similarities, appreciate differences, know the need to work with each
other in order to make a better world.

Class Location/Day/Time/Activities: Time may vary slightly from this schedule for the final
course.

Saturday, July 9 (6:00 – 8:00 pm)
Dinner and orientation to London and the UK

Sunday, July 10 (10:00 am – 5:00 pm)
Discover London – you will be provided a list of 10 historic locations. You will be required to
take pictures and provide a fun fact about each location. The locations will be accessible via
walking or a hop-on hop-off bus tour. Depart London via train for Northamptonshire and check
into hotel.

Monday, July 11 (8:00 am – 5:00 pm)
University of Northampton – lectures on the history of the county of Northamptonshire and the
development and growth of Motorsports Valley. Tour of the campus (4 hours)
Guided tour of Silverstone Formula One track which includes including a lecture on the history
of the track, as well as engineers presenting on the changes to the track (2.5 hours)
Dinner and walking tour of Northampton with university students @ 6:00 pm

Tuesday, July 12 (8:00 am – 7:00 pm)
Oxford Brookes University – tour of campus (30 minutes) opportunities for graduate studies, and
lectures on engines and dampers (4 hours)
Williams Formula One Team – Educational tour of facility by a race engineer (stopping at
engineering stations to learn about the design and development of a winning Formula One race
team, meeting and discussion with engineers (2.5 hours)
Guided, educational tour of Town of Oxford to learn about the history of the town and the
growth of motorsports (The guide will be from the equivalent of our Economic Development
Offices and he will emphasize the history and culture of the town as well as the growth of
motorsports and the economy. (2 hours)

Wednesday, July 13 (8:00 am – 6:00 pm)
Guided Tour of Rockingham Raceway and lecture on the history of the track – Rockingham is
one of the few oval race tracks in the UK (and Europe) – the Manager of the race track will be
able to provide insight into the struggles of the track while explaining to students the
dimensions/banking of the track and plans for further development (2 hours)
Visit Cranfield University – tour campus (30 minutes), meet faculty and students, opportunities
for graduate study, lecture on the intersection of aerospace and motorsports, wind tunnel and
crash testing demonstrations (5 hours)
**Thursday, July 14** (8:00 am – 7:00 pm)
Visit Xtrac (gear boxes) guided tour of facility by the General manager who is also an engineer so that students can learn about the development, testing, and manufacturing of gearboxes for many different types of race cars, meeting and discussion with engineers, history of Xtrac, strategic plans for the organization *(3 hours)*
Visit Toro Rosso Wind tunnel – meeting and discussion with design engineers and simulation engineers, participate in wind tunnel testing *(3 hours)*

**Friday, July 15** (8:00 am – 5:00 pm)
Visit Cosworth Electronics – meeting and discussion with engineers to discuss all of the products that Cosworth offers – electronics and powertrain products as well as data acquisition software, how the products differ for different forms of racing, how Cosworth has changed and grown over the years *(3 hours)*
Visit Mercedes Formula One team – Guided tour of facility by race engineer which will provide the opportunity to learn about the “set up” of the top race team in the world, meeting and discussion with engineers *(3 hours)*

**Saturday, July 16**
Return to London and depart

**Points may be earned in accordance with the following scale:**

| Professionalism, Promptness, and Contribution to discussions | 15% |
| Questions for Site Visits and summary | 15% |
| Discover London Scavenger Hunt | 5% |
| Journal - 5 page reflection paper and discussion | 30% |
| Content paper 6 pages and presentation | 35% |

- Related to Motorsports/Automotive industry and the UK to be approved during pre-departure meeting.

**Grades:**

Letter grades will be assigned in accordance with the following scale:

| 100% to 98 = A+ | 80.99 to 78 = C+ |
| 97.99 to 93 = A | 77.99 to 73 = C |
| 92.99 to 91 = A- | 72.99 to 71 = C- |
| 90.99 to 88 = B+ | 70.99 to 68 = D+ |
| 87.99 to 83 = B | 67.99 to 60 = D |
| 82.99 to 81 = B- | 59.99/lower = F |

**Explanation of Assignments:**

**Professionalism, Promptness, and Preparation**
Students are expected to be courteous and respectful while in the UK. Students are also expected to be on time for all events and activities and contribute during discussions. Students are expected to attend all activities that are deemed part of the class.

**Questions for Site Visits**
Each student is responsible for research each of the companies and universities that we will visit in the UK prior to meeting on July 1, 2016. Prepare at least 2 – 3 questions for each company/place. These questions should be well thought out and the required readings should help shape questions. Submit questions in Assignment section in Canvas prior to July 1. Prepare a 3-4 page summary of the site visits and submit via the Assignment section in Canvas prior to August 6.

**Discover London**
Students will spend the day in London and will be provided a list of historical sites that can be easily found by walking or riding the hop-on, hop-off bus. Students will take photos at each location and provide a fun fact about each. Submit in the Assignment section of Canvas prior to August 6, 2016 meeting.

**Journal and Reflection**
All students are required to keep a daily journal. For the final paper, students will be required to prepare a 5 page paper in which you describe, document, and reflect on your reactions to the English (UK) aspects of behavior, attitudes, and customs, as well as the similarities and differences in the lives of citizens of the UK and the U.S. This paper will permit you to identify important insights, observations, etc. and provide a commentary on learning from your observation. In your paper, please indicate how your learning about a different culture from this class is applicable to your personal, academic, and professional life now and in the future. This paper is meant to be about the cultural learning aspect of your trip. Use APA style. Submit via the Assignment section in Canvas prior to August 6. There will be a class discussion about this at the August 6 class.

**Content Paper**
Prepare a 4-6 page paper on a topic related to Motorsports/Automotive industry and the UK. Topics could include but are not limited to: History of Motorsports in the UK, Biography of an English driver; Motorsports technology developed in the UK and advancement both on and off the racetrack. You topic will be finalized and approved at the July 1 meeting. Submit your topic in the Assignment section of Canvas by finalized by June 29. Use at least three references, in addition to the required readings. Use APA style. You will be required to do a class presentation (10 – 12 minutes) on your paper during the last class session on August 6. Submit final papers and presentation via the Assignment section of Canvas by August 1, 2016.

**Academic Honesty:**
It is important for students to be aware of the expectations of IUPUI regarding individual course work, including written assignments and examinations. Your instructor has high expectations and will hold you to meet those expectations. You need to be aware of the rules which govern your behavior both on and off campus. Should you make a poor choice, you should be aware of the consequences of those actions. Lastly, you should know that your instructor has tools which enable monitoring of the uniqueness of your work. These tools can be used as evidence of academic misconduct.
OTHER IMPORTANT STUDENT AND COURSE INFORMATION:

Safety Information for Overseas: Contact Professor Borme for any illness or emergency situation. An emergency phone number will be given to each student prior to departure.

Expectations of Students: (Source http://registrar.iupui.edu/resources_students.html)

- Students must read all course materials, including the syllabus, schedule, and descriptions grading and evaluation systems to be used in the course.
- Students are responsible for class attendance and completion of assignments on time.
- Students should be prepared for and participate in classroom activities. In that context, students have the right to raise issues relevant to classroom discussion, to offer reasonable doubts about data presented, and to express alternative opinions to those being discussed without concern for academic penalty.
- Students must refrain from all academic misconduct and avoid situations giving the appearance of misconduct.

Code of Student Rights, Responsibilities, and Conduct

Indiana University and IUPUI recognize that all students have basic rights and freedoms afforded to them as citizens and members of the university community. Those rights are outlined in Part I: Student Rights of the Code of Student Rights, Responsibilities, and Conduct.

Students are expected to uphold the educational mission of the university and respect the rights and freedoms of others through behaviors that are consistent with the provisions outlined in Part II: Student Responsibilities of the Code of Student Rights, Responsibilities, and Conduct. Students are expected to read, know, and understand these responsibilities. The Office of Student Conduct interprets these provisions and administers the disciplinary process which upholds the Code. Student Conduct staff are available for consultation on an individual basis for any person who has questions about student responsibilities. Please contact the IUPUI Student Advocate.

Title IX Information

Sexual misconduct - “IU does not tolerate acts of sexual misconduct, including sexual harassment and all forms of sexual violence. If you have experienced sexual misconduct, or know someone who has, the University can help. It is important to know that federal regulations and University policy require faculty to promptly report complaints of potential sexual misconduct known to them to their campus Deputy Title IX Coordinator(s) to ensure that appropriate measures are taken and resources are made available. The University will work with you to protect your privacy by sharing information with only those that need to know to ensure the University can respond and assist. If you are seeking help and would like to speak to someone confidentially, you can make an appointment with a Mental Health Counselor on campus (contact information at http://stopsexualviolence.iu.edu/help/iupui/counseling.html). Find more information about sexual violence, including campus and community resources at http://stopsexualviolence.iu.edu/help/iupui/index.html.”

Department Policies and Procedures
It is not the policy of the Department (ENT) to grant special accommodations for students who miss class, submit late work, or do not fully participate in course requirements without timely communication to the instructor and a documentable justification (medical, military, or variables outside the student’s control).

Students should contact their instructor as quickly as possible if life events interfere with their academic performance or their ability to participate in class meetings or assignments. ENT faculty and staff can connect students to campus resources, facilitate course withdrawals, or provide academic support if we are aware of problems or issues early in the semester. Policies on late or missing assignments, attendance, or other activities will vary by section. See Part II of the Code of Student Rights, Responsibilities, and Conduct for details.

Classroom Etiquette: Please be in class on time and remain for the entire period. It is disruptive to the class when students enter late and/or leave early. Please turn off/silence all portable electronic devices while in class. Also, please be respectful to those facilitating discussions - avoid sidebar/private conversations. Students who chose to use a cell phone, pager, iPod, or other personal electronic device during class should leave the room quietly. In online classes, please use appropriate turn-taking and web tools to engage in class discussions. Find a quiet space in your home or work areas such that background movements and noise do not distract the class.

E-mail Policy: Indiana University considers e-mail an appropriate mechanism for official communication with IUPUI students unless otherwise prohibited by law. The University reserves the right to send official communications to students by e-mail with the full expectation that students will receive e-mail and read these e-mails in a timely fashion. If you prefer to use your personal e-mail provider (AOL, Yahoo, Gmail, for example), forward your IUPUI address to that address so that you don’t miss important, official University mailings.

Check the Canvas Announcement area and your IUPUI email regularly for reminders, campus communication, and other course information related to class meetings or assignments.

To view all campus email through a preferred email account, please click on the link below to set your all IUPUI email accounts to forward to the account you check on a daily basis. http://uits.iu.edu/page/berh

Campus Policies and Procedures

The IUPUI Office of the Registrar provides details relating to campus-level policies as well as deadlines for withdrawal from this and all courses. Students are responsible for reading and understanding the academic calendar, the Code of Student Conduct, and other campus/school-level policies and procedures. Please review all other official campus information, academic dates, and other important information at the following link: http://registrar.iupui.edu/

Bulletin: The IUPUI Bulletin includes a list of degree requirements, school graduation requirements, and information related to other programs across the campus. This electronic document is updated each fall: http://bulletin.iupui.edu/

Emergency Alerts: IU uses a variety of methods to provide emergency and safety information. Collectively, these capabilities are called "IU-Notify." Register for IU-Notify so you receive alerts by going here: https://protect.iu.edu/emergency/iunotify

Weather or Emergency Cancellation: School closings or weather-related cancellations will be announced on television and radio. Call (317) 278-1600 for the latest open or closed status for campus or visit http://protect.iu.edu/emergency. Fully online courses will still meet during weather alerts, please check course announcements for additional changes.
**Administrative Withdrawal:** A basic requirement of this course includes participation in class and conscientious completion of all activities and assignments. Students who miss more than half of the course meetings and/or do not submit required work during the first 25% of the course length will be Administratively Withdrawn via during the Performance Evaluation Period. Administrative withdrawal may have academic, financial, and financial aid implications. Administrative withdrawal will take place after the full refund period for this course; and, if you are administratively withdrawn from the course you will not be eligible for a tuition refund. If you have questions about the administrative withdrawal policy at any point during the semester, please contact me. [http://registrar.iupui.edu/withdrawal-policy.html](http://registrar.iupui.edu/withdrawal-policy.html)

**Withdrawal**
If you are unable to complete the course, you must officially withdraw with the Registrar’s Office, following the timetable and procedures of the University (find the current academic calendar by going to the Registrar’s home page). If you do not withdraw and do not complete the required course work, you will receive an “F” for the semester. Students admitted to University College or the School of Engineering and Technology are permitted one 3.0 credit hour withdraw per semester.

Note: Failing to participate in class is not considered withdrawal from the class. Do NOT simply stop participating. If you have problems with the course or personal problems preventing you from participating in class, talk to your instructor(s) or advisor about how to officially withdraw.

**Plagiarism:** Please note that all students are expected to complete his/her work. IUPUI Faculty/Student Handbooks note that “honesty requires that any ideas or materials taken from another source for either written or oral use must be fully acknowledged. Offering the work of someone else, as one's own, is plagiarism. The language or ideas thus taken from another may range from isolated formulas, sentences, or paragraphs to entire articles copied from books, periodicals, speeches, or the writings of other students. The offering of materials assembled or collected by others in the form of projects or collections without acknowledgement also is considered plagiarism. Any student who fails to give credit for ideas or materials taken from another source is guilty of plagiarism” (2014). Students must give credit for information and ideas from other source. The official style guide for Engineering and Technology is APA Style (If a specific course requires format/style guidelines other than APA, this information will be provided in the assignment instructions.)

IU, Purdue, and IUPUI policy dictate that we investigate any suspicion of cheating or plagiarism. OLS policy is an automatic F for any assignment where the author has cheated and/or plagiarized material – with no opportunity for a re-write. We must also report the incident to the Dean's Office. More information about plagiarism can be found at [http://life.iupui.edu/conduct/procedures](http://life.iupui.edu/conduct/procedures)

**Incomplete Grades:** “The grade of Incomplete used on the final grade report indicates that a substantial portion of the course work has been satisfactorily but not entirely completed as of the end of the semester. The grade of Incomplete may be given only when the completed portion of the student's work in the course is of passing quality. Should the faculty member agree to assign a grade of Incomplete, he or she also has the right to set a specific date (up to one year) by which all unfinished work must be completed. Upon submission of the completed work, the faculty member files a Removal of Incomplete form with the Office of the Registrar.

Please note that by agreeing to assign a grade of Incomplete (I), the instructor is not required to give the student a year to finish the work. The instructor has the right to set a shorter-term deadline as deemed appropriate. If the student has not satisfactorily completed the work by the deadline established by the instructor, the instructor should send a Removal of Incomplete form to the Office of the Registrar with the appropriate grade on the completed work. If the work has not been completed and a grade assigned within a year from the end of the semester in which the Incomplete was awarded, the Office of the Registrar will automatically change the grade to an F.”
For additional information, please view the origin of the text above in the IUPUI Bulletin or the Registrar’s website: [http://registrar.iupui.edu/registration-guide/incomplete-grades.htm](http://registrar.iupui.edu/registration-guide/incomplete-grades.htm)

**No Class Attendance without Official Enrollment:** After the conclusion of the 100% refund period for the relevant term or session ([http://www.bursar.iupui.edu/refunds.asp](http://www.bursar.iupui.edu/refunds.asp)), all individuals attending classes on a regular basis MUST be officially enrolled in the class, attending the class based on formal arrangements to make up a prior grade of Incomplete, or enrolled as an auditor.

- Students making up an Incomplete from a prior term should be added to the Learning Management system roster as well as at the Student Performance roster (part of IU FLAGS system).
- Students who are officially auditing a course ([http://registrar.iupui.edu/auditcrs.html](http://registrar.iupui.edu/auditcrs.html)) must follow the course attendance and work expectations agreed to by the course instructor.
- One time visitors to classes may be allowed only on an exception basis with prior permission of the instructor.
- Individual academic units may have stricter policies based on the types of instruction occurring within the unit.

Note: This policy does not apply to individuals who provide assistance to a student with a documented disability, such as Adaptive Educational Services sign language interpreters, individuals who are involved in the course in an instructional role, or administrative personnel.

**Adaptive Educational Services:** Adaptive Educational Services (AES) provides accommodations for students with special challenges or disabilities that may affect their classroom performance. If you are eligible you may register with AES by calling 274-3241 and making an appointment; or visiting them in Taylor Hall, UC Suite 100. Visit [http://aes.iupui.edu/](http://aes.iupui.edu/) for more information.

**Counseling and Psychological Services (CAPS):** During the semester, if you find that life stressors are interfering with your academic or personal success, consider contacting IUPUI's Counseling and Psychological Services (CAPS). All IUPUI students are eligible for individual counseling services at minimal fees. Group counseling services are free of charge. CAPS also performs evaluations for learning disorders and ADHD; fees are charged for testing. CAPS is located in Walker Plaza, Room 220 (719 Indiana Avenue) and can be contacted by phone (317-274-2548). For more information, see the CAPS web-site at: [http://life.iupui.edu/caps/](http://life.iupui.edu/caps/).

**IUPUI Writing Centers & Resources**

**Technical Communication Writing Center:** Technical Communication tutors offer individual tutoring on campus or online (hours vary by semester) to help students with their writing assignments or other communication tasks. Contact the TCM Writing Center (located in ET 232) via email tcmwc@iupui.edu or [click here to schedule an appointment](http://registrar.iupui.edu/registration-guide/incomplete-grades.htm).

**University Writing Centers:** The University Writing Center provides tutoring for students, staff, and faculty on all kinds of writing assignments and projects. A tutoring staff consisting of faculty and peer tutors work with their clients to understand assignments; brainstorm ideas; relate purpose and audience; develop, organize, revise, and edit pieces of writing. The University Writing Center Hotline can be reached [online](http://registrar.iupui.edu/registration-guide/incomplete-grades.htm) or by phone at 317.274.3000 or 317.274.3288 (branch in University College).

**University Library Writing Tutorials:** These very brief tutorials will help you make good choices and apply proper format to all of your writing assignments. Note that Adobe 9 is required for viewing many of these tutorials. Some tutorials must be downloaded. Mac users will need to download all the tutorials before viewing. Follow the link to APA Practices Exercises on the last slide of the Citing Sources Adobe Connect Tutorial below to practice formatting sources into proper APA style.
Purdue Online Writing Lab: To learn how to synthesize reference material (ideas, quotes, paraphrasing, and summaries) from sources into the body of your written work, format APA cover and Reference pages, or see examples of APA Style, visit the Purdue OWL.