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1 Important Dates

1.1 Competition Dates and Place

August 06, 2008 to August 10, 2008

Formula Student Germany (FSG) will take place in Hockenheim/Germany.

1.2 Registration

February 01, 2008

Registration forms will be accepted in the order which they are received, starting February 01, 2008 at 1300 CET and ending on April 30, 2008 1300 CET or when the 64 cars registration limit is reached. Registration will be online at the FSG Website.

1.2.1 Early Registration

January 21, 2008

Early registrations will be accepted in the order in which they are received, starting January 21, 2008 at 1300 CET and ending on January 30, 2008 at 1300 CET, or when 20 teams have registered, whichever occurs first. The registration fee must be paid on-line by PayPal within 72 hours of registration. Registration fees may not be paid by any other means. Registration fees are not refundable. There is no late registration and there are no exceptions to this registration policy.

If all Early Registration Slots are full for one region, additional teams from the same region can register when Official Registration opens on February 01, 2008. All remaining slots that are not used during early registration will then become available for all teams when Official Registration opens on February 01, 2008.

1.3 Structural Equivalency Form

May 01, 2008

IMPORTANT: ALL TEAMS MUST SUBMIT A STRUCTURAL EQUIVALENCY FORM. A blank copy of this form is supplied in FSG Appendix A-A.

Structural Equivalency form must be uploaded to the 'My Team' area on the FSG website no later than May 01, 2008.

In the event that the FSG Technical Committee requests additional information or calculations, teams have 10 working days from the date of the request to submit the requested information.

Late submissions will be penalized with -10 (ten) points per working day.

1.4 Impact Attenuator Data

June 01, 2008

IMPORTANT: ALL TEAMS MUST SUBMIT AN IMPACT ATTENUATOR DATA FORM. A blank copy of this form is supplied in FSG Appendix A-B.

Impact Attenuator Data must be uploaded to the 'My Team' area on the FSG website no later than June 01, 2008.

In the event that the FSG Technical Committee requests additional information or calculations, teams have 10 working days from the date of the request to submit the requested information.

Late submissions will be penalized with -10 (ten) points per working day.

1.5 Engineering Design Report and Design Spec Sheet

June 01, 2008

The FSG Engineering Design Report and the FSG Engineering Design Spec Sheet must be uploaded to the 'My Team' area on the FSG website no later than June 01, 2008.

Late submissions will be penalized with -10 (ten) points per working day. No report submitted will result in a score of zero for the Engineering Design Event.

1.6 Cost Report

June 13, 2008

The Cost Report consists of 2 parts, the Written Report and the Electronic Copy of the Bill of Materials (BOM). The electronic BOM must be submitted as a Microsoft Excel® (*.xls) file. The file must be uploaded to the 'My Team' Area on the FSG Website no later than June 13, 2008. The written Report must *arrive* at the address listed below, no later than June 13, 2008.

Mr. Daniel Mazur
Formula Student Germany
Jasperallee 86
38102 Braunschweig
GERMANY

The used parcel or envelope must be clearly labeled with the Senders University Name and Car Number.

Late submissions will be penalized with -10 (ten) points per working day.

1.7 Business Plan Executive Summary

July 15, 2008

The Business Plan Executive Summary must be uploaded to the 'My Team' area on the FSG website no later than July 15, 2008. (See FSG Rule 5.1.1 Executive Summary).

Late submission or non-submission will be penalized at the discretion of the judges up to -5 (five) points. These penalty points will be taken from the Presentation Judging Form.

1.8 Fuel Type Order

July 01, 2008

You must inform FSG which type of fuel you will use no later than July 01, 2008

1.9 Participating Team Member Selection

July 01, 2008

After payment the booked spaces must be allocated to the participating team members by accessing the event settings from the event list on 'My Team' area. The Team Captains can only register participants until July 01, 2008.

Team members can only be selected as participants if they have entered the following personal information in their user profiles:

- Personal Address (required for insurance)
- ZIP code (required for insurance)
- City (required for insurance)
- Clothing size (required for Event T-Shirts)
- Emergency contact person (parents e.g.)
- Emergency contact phone (parents e.g.)

1.10 Health Insurance Certificate

July 01, 2008

Collect and scan all health insurance certificates of the event participants and upload them as a multiple page Adobe Acrobat® file (*.pdf) no later than July 01, 2008.

2 General

2.1 Formula Student Germany 2008 Rules

The Formula Student Germany (FSG) competition will comply with the Formula SAE® 2008 rules, located here:

<http://students.sae.org/competitions/formulaseries/rules/rules.pdf>

Formula Student Germany does have some specific rules changes and additions. Those changes and additions are located within this document, which supersede the specific sections of the published Formula SAE® rules for 2008. Any questions or ambiguities concerning the rules for Formula Student Germany will be resolved by the Formula Student Germany Rules Committee.

2.2 Official Language

The Formula Student Germany Official Language is English.

2.3 Official Time

The Formula Student Germany Official Time is Central European Time (CET). To convert CET to your local time you may use following website:

<http://www.timeanddate.com/worldclock/converter.html>

2.4 FSG Registration

2.4.1 FSG Registration Deadline

The registration deadline for Formula Student Germany is listed in the Important Dates section of this document. (Please refer to FSG Rules, section 1.2)

2.4.2 FSG Registration Limit

Registrations will be given out, in the order in which they are received. The 2008 Formula Student Germany competition will be limited to 64 teams.

2.4.3 Early Registration

20 registration slots will be available for Overseas Teams and non-German European teams before Official Registration starts. These 20 slots are split into 4 regions as follows:

Region (For Definition of Regions see Appendix B)	Number of Slots
Australasia	4
Europe (beside Germany)	6
North America	6
Rest of the world beside Europe	4

2.4.4 FSG Registration Fee

The registration fee of 500 Euros is for a 15-person team. More team members can be registered for 20 Euros per each additional team member.

2.4.5 FSG Registration Required Information

Once the team has officially been registered for FSG, each team member and faculty advisor is required to add his/her identifying information online. All participants must provide their name and individual emergency contact information.

Participants may only be added (registered) by the team's official contact person (the person who registered the team) until July 1, 2008.

2.5 Society Membership

Students should be a member of a Fisita Organization. (www.fisita.org)

2.6 Faculty Advisor

FSG recommends that all participating teams have a faculty advisor present with them at the competition. In the case of having no Faculty Advisor, present during competition, the Team Captain will take over all responsibilities of the Faculty advisor.

3 Vehicle Requirements and Restrictions

3.1 Brake System

3.1.1 Brake System Components mounting (Specific FSG change of Formula SAE® 2008 Rule 3.7.2.2 Securing Fasteners)

Nylon lock nuts are not allowed for mounting Brake calipers or Brake discs. All critical bolts, nuts, and other fasteners on the brake system, must be secured from unintentional loosening by the use of FSG approved positive locking mechanisms.

3.2 Engine Lubrication System

The lowest point of the engine lubrication system must be no lower than the lowest frame rail. If the engine oil sump or any other part of the lubrication system is lower than the lowest frame rail, it must be protected by a FSG approved skid plate, or frame tubes installed longitudinally under affected part of the engine lubrication system.

The engine lubrication system must be protected from surface contact in any situation while in operation on track, especially in the event of a suspension failure.

3.3 Refueling (Specific FSG change of Formula SAE® 2008 Rule 3.5.3.4)

Re-fueling must be able to be accomplished without the removal of any body parts of the car.

3.4 Firewall

3.4.1 Non-Metal Material

In case of using a non-metal material for the firewall (i.e. carbon fiber, fiberglass, etc.) a fire resistant heat protection shield with a metal surface must be fitted to the engine side of the firewall.

3.5 Pit Rules

3.5.1 Electrical Power during pushing

The car must be able to be pushed around with the Primary Master Switch in the OFF position.

3.5.2 Push Bar (Specific FSG change of Formula SAE® 2008 Rule 5.11.2)

The push bar must be a separate, detachable device. Rear wings will not be accepted as push bar. The push bar must be located behind the rear axle when the car is moved. One fire extinguisher has to be attached to the push bar by a quick release fastener in an easily accessible position.

3.5.3 Engine running in the pits

Running of engines is not allowed in the pits or the garage areas. There is a designated, supervised, engine running area for this purpose. All engine running is to be conducted in the designated engine running area only. Engine running is allowed only during the active hours of competition. No engines are to be run under any circumstances between the hours of 2000 to 0830.

3.6 Quick Jack

Each team must present a quick jack to lift up the car by using the jacking point during Technical Inspection. The quick jack must be able to lift up rear end of the car, so that the drive wheels are at least 10.2 cm (4 in) off the ground.

3.7 Vehicle Identification

3.7.1 School Name (Specific FSG change of Formula SAE® 2008 Rule 3.6.2)

Following school type abbreviations are accepted. The city name must be written fully.

Technical University - TU + City

University of Applied Sciences – UaS + City

University - Uni + City

Berufsakademie - BA + City

If the university uses a shortcut in their proper name, this shortcut is acceptable + city.

Example:

real name: Rheinisch-Westfälische Technische Hochschule Aachen -

proper name: RWTH Aachen

3.7.2 Organization Logo (Specific FSG change of Formula SAE® 2008 Rule 3.6.3)

The FSG logo must be displayed on the front and both sides of the vehicle. Stickers are issued during on-site check-in. FSG logo can be downloaded from the FSG Website.

A space 75 mm tall x 150 mm wide (3" tall x 6" wide) must be made available for these stickers.

3.7.3 Technical Inspection Sticker Space (Specific FSG change of Formula SAE® 2008 Rule 3.6.4.)

The technical inspection sticker will be placed on the nose of the car directly in front of the cockpit opening. A space 75 mm tall x 150 mm wide (3" tall x 6" wide) must be made available for this sticker.

3.8 Transponders (Specific FSG change of Formula SAE® 2008 Rule 3.8)

Transponders will be provided by FSG.

3.9 Structural Equivalency and Structural Equivalency Form (Specific FSG change of Formula SAE® 2008 Rule 3.3.2 and 3.3.2.1)

All teams must submit a filled out copy of the Structural Equivalency form, supplied in FSG Appendix A-A. Even if the chassis is compliant to the rules, the form must be submitted online, no later than the specified date. (Please see FSG Rules, section 1.3)

3.10 Impact Attenuator Data

All teams must submit the FSG Impact Attenuator Data Form, supplied in FSG Appendix A-B, along with any calculations, and or test results. The Impact Attenuator Data must be submitted no later than the specified date. (Please see FSG Rules, section 1.4).

4 Technical Inspection

4.1 Inspection & Testing Requirement

Tech Inspectors will mark or seal various different approved parts (i.e. air restrictor, tires, rims etc.). The car can be disqualified from any dynamic event by using, or substituting unmarked parts. Parts with broken seals are equivalent to being unmarked.

4.2 Car Weighing

All cars will be weighed prior to Engineering Design Judging. All cars are to be weighed in ready to race condition. The fuel tank must be filled to the fuel level line (Formula SAE® Rule 3.5.3.3 Fuel Level Line). All lubricants and coolant must be in the car. This weight will be the car's Official Technical Inspection weight. There will be a penalty if the car weight changes during Dynamic Competition. The allowable weight tolerance is ± 5.0 kg. In the case of overweight or underweight in comparison to the Technical Inspection weight, the team will be penalized -20 (twenty) points for each kg (or portion of a kg) of additional or missing weight. This point penalty will be deducted from the Engineering Design Event score. (Each 0.1 to 1.0 kg = -20 points)

Example:

If the car is 5.3 kg underweight: 5.3 kg minus the 5.0 kg tolerance = 0.3 kg equals -20 Points

If the car is 7.8 kg overweight: 7.8 kg minus the 5.0 kg tolerance = 2.8 kg equals -60 Points

If the car weight changes due to replacement of broken parts, the car must be presented for tech inspection and then re-weighed. It is the team's responsibility to have the car re-weighed before entering a dynamic event after changing parts.

4.3 Noise Test

4.3.1 Active controlled devices in the exhaust system

In case of using an active controlled device (mechanical, electronic or pneumatic controlled) in the exhaust system that can have influence on the exhaust volume or flow, this device must be in 'full open' position for the duration of the entire noise test.

4.3.2 Non-controlled devices in the exhaust system

In case of using a non-controlled device in the exhaust system that has any influence on the exhaust volume or flow, the device will be sealed in the 'as tested' position by the Tech Inspector.

4.3.3 Inspection Process (Specific FSG change of Formula SAE® 2008 Rule 4.2.4)

Noise, Master Switch and Brake Tests.

Noise will be tested by the specified method (Rule 3.5.5.3). If the vehicle passes the noise test then its master switches will be tested (see Rule 3.4.9).

If the team will test the brakes before the noise test, the car must pass the master switch tests before.

5 Static Events

5.1 Business Plan Presentation (75 Points)

5.1.1 Executive Summary

Judging will start with an Executive Summary before the FSG Competition. The principal document submitted prior to the Business Plan Presentation is an Executive Summary. The Executive Summary must not exceed one (1) page. The Executive Summary should contain a brief description of the team's Business Plan. Included in the Summary should be listed the two most outstanding technical features of the car. The Summary should include the prototype car costs (as they will be presented to the cost judges) and the anticipated production cost, per vehicle, in a production run of 1000 cars per year.

The Executive Summary must relate to the specific prototype car entered in the FSG competition. The costs of the prototype car entered will not be considered as part of the Business Plan judging. Even though the Executive Summary is only judged by the presentation judges, all Engineering Design and Cost judges will have access to the file and may refer to it.

The Executive Summary must be submitted in Adobe Acrobat® format (*.pdf file) online, no later than the specified date. (Please see FSG Rule section 1.7)

This Executive Summary is only evaluated by the presentation judges in the categories of 'content' and 'organisation'. Late submission and non submission will be penalized. It is at the discretion of the judges to deduct between -5 (five) points from the Presentation Judging score.

Note: Consider your Executive Summary to be the first impression of your Business Plan to the Executive Board of a major auto manufacturing company.

5.1.2 Data Projection Equipment

Video Projectors will be provided by Formula Student Germany. These Projectors will have VGA Input Connectors.

Any other presentation equipment needed will not be provided by the organizers. Teams planning to use other presentation equipment, as a part of their presentation, are responsible for bringing, or otherwise arranging for their own equipment.

5.1.3 Judging Sequence

At Formula Student Germany the Business Plan Presentation Judging will consist of two parts:

- I. Initial judging of all teams
- II. Final judging ranking the top 4-5 teams

5.1.4 Scoring Formula

The scoring of the event is based on the average of the two or three presentation judging forms. There is a maximum of fifty (50) points from the Presentation Judging Form.

Non finalist:

$$\text{PRESENTATION SCORE} = 70 \times (P_{\text{your}}/P_{\text{max}})$$

Where:

“ P_{max} ” is the highest score awarded to any team not participating in the finals

“ P_{your} ” is the score awarded to your team

Finalists:

1st Place 75 points

2nd Place 74 points

3rd Place 73 points

4th Place 72 points

5th Place 71 points

It is intended that the scores will range from near zero (0) to seventy-five (75) to provide good separation. The Presentation Event Captain may at his/her discretion; normalize the scores of different judging teams.

5.2 Engineering Design Event (150 Points)

5.2.1 Judging Sequence

At Formula Student Germany Engineering Design Judging will consist of two parts:

- I. Initial judging of all vehicles
- II. Final judging ranking of the top 8 vehicles

5.2.2 Engineering Design Report Files File Format and Size

The Engineering Design Report must be submitted in Adobe Acrobat® format (*.pdf file) online, no later than the specified date. (Please see FSG Rule, section 1.5) The size of the document must not exceed 5MB. A responsibly sized document will be much smaller than 5MB in file size. Please ensure that photos within the Acrobat file are of an appropriate resolution.

5.2.3 Engineering Design Spec Sheet File Format and Units

The Engineering Design Spec Sheet must be submitted in Microsoft Excel® format (*.xls file) online, no later than the specified date. (Please see FSG Rule, section 1.5) The Formula Student Germany Engineering Design Spec Sheet template can be found on the FSG website at:

<http://www.formulastudent.de/events/event-2008/important-documents/>

The template is for *metric* units only. DO NOT alter or re-format the template prior to submission.

5.2.4 Penalty for late submission

Penalties for late/non submission of the Engineering Design Reports and/or Engineering Design Spec Sheets is as follows:

Late arrival of one or both documents: -10 (ten) points for each working day.

Failure to submit one or both documents will automatically result in zero points for the Engineering Design Event.

The penalty points will be deducted from your final Engineering Design Scores. The minimum allowable Engineering Design Score will be 0 Points. (Points will not go negative.)

5.3 Cost Event (100 Points)

Note: Some portions of the Formula SAE® 2008 Rules are altered for FSG 2008. **Alterations or extensions to the Formula SAE® 2008 Rules are marked cursive (italic).**

5.3.1 FSG revised Formula SAE® 2008 Rule 4.3.3 Scoring¹

The points for the Cost and Manufacturing Event will be broken down as follows

$\frac{10 \times (P_{max} - P_{your})}{(P_{max} - P_{min})}$	<p><i>10 Points</i></p>	<p><i>Lowest cost - each of the participating schools will be ranked by total adjusted retail cost from the BOM and given 0-10 points based on the formula on the left. P_{your} is the adjusted cost of your car and P_{min} is the adjusted cost of the lowest cost car. P_{max} is the cost of the most expensive car.</i></p>
	<p><i>10 Points</i></p>	<p><i>The Cost Report – written, professional presentation of cost data - The report score will be given based on the quality of the cost report, its accuracy and thoroughness. The range for the report score is 0 – 10 points.</i></p>
	<p><i>40 Points</i></p>	<p><i>Real Case Situation – Teams will receive a task covered a “Real Case in Industry”</i></p>
	<p><i>40 Points</i></p>	<p><i>Event Day/Visual Inspection - The cars will be reviewed for part content and manufacturing feasibility. The submitted process descriptions will be discussed.</i></p>
Total	<p>100 Points</p>	

5.3.2 FSG revised Formula SAE® 2008 Rule 4.3.4 The Cost Report²

The cost report must be reflective of the **prototype** vehicle that the team has brought to the competition. The cost report shall fit in a ring binder with 8.5” x 11” or A4 pages no more than 5” thick.

Cost Report Identification

The cover of the cost report must include the following (a) University Name, (b) Competition Name, and (c) Vehicle Number.

¹ Changes or extensions made by FSG are marked cursive (italic). The Rule is a revised version of the Formula SAE® 2008 Rule 4.3.3 Scoring

² Changes or extensions made by FSG are marked cursive (italic). The Rule is a revised version of the Formula SAE® 2008 Rule 4.3.4 The Cost Report

The Cost Report must consist of the following

- A cover sheet
- A Table of Contents
- A Cost Summary page listing each section's cost, and the total vehicle cost
- Eight commodity report sections with the components placed in the sections as specified in Appendix A-3.
- Tabs for each section

Each commodity report section must include:

- A Bill of Materials (BOM) for that section, listing end items only, of the prototype that the team has brought to the competition.
- Up to one page of process description per manufactured or modified part (see below)
- Receipts.
- Other backup material (prints, photos, et al)

Process Descriptions

Process descriptions are only submitted for parts your team makes from scratch, or parts that were purchased and then modified. Process descriptions are not to be submitted for purchased parts. These Process Descriptions clearly explain how a part was manufactured.

Bill of Materials (BOM)

The BOM must be divided into the eight (8) sections specified in Appendix A-3. Each section must follow the format given in Appendix A-4. The BOM must have the columns as listed in A-4. The columns must be in the order shown in A-4, and there may be no other columns added, nor may any columns be eliminated. The BOM's are run through a program during judging prior to the event, and reports that do not follow the layout of A-4 will not be scored.

End Items – Definition

An end item is a part that is bolted onto the car as part of the final assembly process. It may also be described as a replacement part that is sold to the customer that owns one of the production cars.

Examples:

A control arm. The control arm is made up of several tubes welded or bonded together, with rod ends threaded to the arm. The parts in the control arm assembly are not included in the BOM. The arm is then bolted to the frame. Thus the control arm is an end item part.

A brake caliper. The caliper is made up of a housing, piston(s), o-rings, nipple, bleeder screw, and a cap. The parts in the caliper assembly are not included on the BOM. The caliper, as it is bolted to the car is an end item.

If your team is unsure if a part should be listed as an end item, feel free to ask the Rules Committee. A typical list of end items can be found in the appendix of these rules for your further clarification.

5.3.3 FSG revised Formula SAE® 2008 Rule 4.3.4.1 General Requirements³

The Cost Report must:

(A) Reflect the actual, one-off, prototype vehicle brought to the event in terms of specification.

(B) List and cost every part on the prototype vehicle. This includes any equipment fitted on the vehicle at any time during the competition. The only exceptions are that, per section 4.3.7 of the Formula SAE® Rules, the cost of any finish, on-board fire suppression system, rain tyres, or 'stand-alone' data acquisition, video or radio system, does not need to be included in the Cost Report.

(C) Be based on the estimated costs of materials, fabrication costs and assembly costs of the car. The costs shall be calculated as defined in Section 4.3.6 of the Formula SAE® Rules.

(D) Be based on the actual manufacturing technique used on the prototype, e.g. cast parts on the prototype should be cost as cast, and fabricated parts as fabricated, etc. The reported cost of the prototype vehicle will exclude capital expenditures (e.g. plant, machinery). *The prototype vehicle's calculated costs are not limited.*

(E) The reported cost of the prototype vehicle must include the process labor costs (only the process labor costs) for tooling specially manufactured for the parts of the prototype. (e.g. molds for Carbon Fiber parts, casting molds etc). The costs must include all processes needed to manufacture the tool(s) (e.g. manufacture positive parts for making the molds)

5.3.4 FSG revised Formula SAE® 2008 Rule 4.3.4.3 Report Submission and Deadline⁴

(A) The submitted Cost Report must include both a printed 'hard' copy and an electronic copy of the costed BOM. The uploaded copy must be equal to the FSAE-published version:

<http://students.sae.org/competitions/formulaseries/rules/>

(B) The printed 'hard' copy of the report must be on 8-1/2" x 11" or A4 size paper, using a 10-point font size or larger.

(C) The electronic copy of the BOM must use Microsoft Excel® on a CD ROM only. It should NOT include copies of receipts or any back-up material.

These reports should be mailed to the address listed in 1.6 Cost Report.

5.3.5 FSG revised Formula SAE® 2008 Rule 4.3.4.4 Penalty for Late Submission of Cost Report⁵

Teams that submit reports later than the specified date will be penalized -10 (ten) points per working day, with a maximum penalty of -80 points. Teams that do not submit a Cost Report will receive -100 (one hundred) points for the Cost & Manufacturing Analysis score.

³ Changes or extensions made by FSG are marked cursive (italic). The Rule is a revised version of the Formula SAE® 2008 Rule 4.3.4.1 General Requirements

⁴ Changes or extensions made by FSG are marked cursive (italic). The Rule is a revised version of the Formula SAE® 2008 Rule 4.3.4.3 Report Submission and Deadline

⁵ Changes or extensions made by FSG are marked cursive (italic). The Rule is a revised version of the Formula SAE® 2008 Rule 4.3.4.4 Late Submission of Cost Report

5.3.6 FSG revised Formula SAE® 2008 Rule 4.3.4.6 Cost Report Judging and Penalties⁶

From the Bill of Material, the cost judges will determine if all parts and processes have been included in the analysis and if unreasonably low costs have been used (determined by the experience of the judges).

In the case of any omission, error, or cost below reasonable, the teams will lose points for the “Event Day / Visual Inspection” up to a maximum of -40 (forty) points.

Cost Reports that have made no obviously serious attempt at an accurate cost estimate or that claim to have a cost that is substantially below what the Cost Judges know to be appropriate for cars of this type will be disqualified as unresponsive and will be scored as un-submitted.

At this discussion, the Cost Event Judges will:

- (A) Review whether the specification of the vehicle in the Cost Report accurately reflects the vehicle brought to the Competition.
- (B) Review the manufacturing feasibility of the vehicle.
- (C) Judge a 5 minute presentation from the Team about a “real case” situation.

The teams will receive a specific task from the cost judges prior the competition. The task will be sent via email on the date specified in the Action Deadlines, to the team’s responsible person’s email address. The team must present their solutions at the competition in a 5 minute presentation during the Cost Event. It is a team’s decision how they will present the results. Points will only be given for the presented results, not for the presentation.

The team must present their vehicle at the designated time to the Cost Event judges for review of the Cost Report. Teams that miss their Cost Event appointment will potentially lose all Cost Event points for that day. The schedule for these appointments will be in the registration packets and/or posted on the FSG website.

⁶ Changes or extensions made by FSG are marked cursive (italic) FSG revised Formula SAE® 2008 Rule 4.3.4.6 Cost Report Judging and Penalties

Formula Student Germany - Appendix A-A

STRUCTURAL EQUIVALENCY FORM



This form must be completed and submitted **no later the date specified** in the Action Deadlines. The FSG Technical Committee will review all submissions which deviate from the FSAE® and FSG rules for Roll-over or Side Impact Structure. **This form must also accompany the vehicle to Technical Inspection.**

Structural Equivalency Forms (SEF) and supporting calculations must be submitted electronically in Adobe Acrobat Format (*.pdf) and must be upload on the FSG-Website.

In the event that the FSG Technical Committee requests additional information or calculations, teams have **10 working days** from the date of the request to submit the requested information.

Late submissions will be penalized with -10 (ten) points per working day.

Contact Details

Car Number

University Name

Team Contact Person

Last Name, First Name

Telephone Number

E-mail Address

Rule Deviated?

(ALL teams must answer this question.)

YES, rule(s) deviated NO, chassis is compliant to the rules

Check all that apply:

- 3.3.4.2 Main Roll Hoop
- 3.3.4.2.F Main Roll Hoop Attachment to Monocoque
- 3.3.4.3 Front Roll Hoop Material
- 3.3.5.1 Main Roll Hoop Bracing
- 3.3.5.2 Front Roll Hoop Bracing
- 3.3.5.3 Monocoque Bracing Attachment
- 3.3.6.1 Front Bulkhead
- 3.3.6.2 Front Bulkhead Support
- 3.3.6.2.D Monocoque Front Bulkhead Support
- 3.3.8 Side Impact Protection Material
- 3.3.8.2 Composite Monocoque Side Impact Protection
- 3.3.8.3 Metal Monocoque Composite Side Impact Protection
- 3.4.1.d Monocoque Safety Harness Attachment

Attach Proof of Equivalency

Roll bar documentation should include material type(s), material certification(s), properties, heat treatment, and strength calculations showing equivalency. Side impact documentation should include material type(s), material certification(s), properties, heat treatment, cloth weights, resin type, fiber orientation, number of layers, core material, lay-up technique, and strength calculations showing equivalency.

Formula Student Germany - Appendix A-B

IMPACT ATTENUATOR FORM



This form must be completed and submitted **no later the date specified** in the Action Deadlines. The FSG Technical Committee will review all submissions which deviate from the FSAE® and FSG rules for Impact Attenuator. **This form must also accompany the vehicle to Technical Inspection.**

Impact Attenuator Form (IAF) and supporting calculations must be submitted electronically in Adobe Acrobat Format (*.pdf) and must be upload on the FSG-Website.

In the event that the FSG Technical Committee requests additional information or calculations, teams have **10 working days** from the date of the request to submit the requested information.

Late submissions will be penalized with -10 (ten) points per working day.

Contact Details

Car Number	<input type="text"/>
University Name	<input type="text"/>
Team Contact Person	
Last Name, First Name	<input type="text"/>
Telephone Number	<input type="text"/>
E-mail Address	<input type="text"/>

Attach Proof of Impact Attenuator

Appendix B - Regions and Countries

Australasia	Australia, New Zealand
Europe	Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, Vatican City State
North America	Canada, United States of America
Rest of the World	All countries not listed above