



SHELL ECO-MARATHON SOUTH AFRICA 2018

OFFICIAL RULES CHAPTER II



UNIVERSITY
OF
JOHANNESBURG



CONTENTS

1. GENERAL	4
ARTICLE 200: PARTICIPANTS	4
ARTICLE 201: DRIVERS	4
ARTICLE 202: TEAM NAMES	4
ARTICLE 203: INSURANCE	4
ARTICLE 204: DAMAGES NOT COVERED BY THE EVENT ORGANISER	5
ARTICLE 205: MANDATORY DOCUMENTS	5
ARTICLE 206: PARTICIPANT CHECK-IN: OPENING HOURS AND CHECK-IN PROCESS	5
ARTICLE 207: VEHICLE DELIVERY AND PICK-UP	5
ARTICLE 208: ORDERING MANDATORY EQUIPMENT	6
2. SAFETY	7
ARTICLE 209: SMOKING	8
ARTICLE 210: DRUGS AND NARCOTICS	8
ARTICLE 211: ALCOHOL	8
ARTICLE 212: FIRE SAFETY	8
ARTICLE 213: TOOLS AND WORK EQUIPMENT	8
ARTICLE 214: TEST TRACK	9
ARTICLE 215: PEDESTRIANS	9
ARTICLE 216: PARTICIPANT DRONES	9
3. PADDOCK RULES	10
ARTICLE 217: PADDOCK ACCESS	10
ARTICLE 218: COMPLETE PADDOCK AREA HOUSEKEEPING	10
ARTICLE 219: PROTECTIVE EQUIPMENT AND MATERIALS	11
ARTICLE 220: MATERIAL SAFETY DATA SHEETS (MSDS)	11
ARTICLE 221: SAFETY WALKS	11
ARTICLE 222: EMERGENCY EXITS	11
4. COMPETITION/PRACTICE	12
ARTICLE 223: DEFINITION OF COMPETITION	12
ARTICLE 224: START AND FINISH OF COMPETITION	12
ARTICLE 225: RFID TAG ATTRIBUTION	12
ARTICLE 226: FUEL CONSUMPTION CHECKS	12
ARTICLE 227: PANEL INFORMATION	12
ARTICLE 228: TIMEKEEPING	12
ARTICLE 229: RACE DIRECTOR AND MARSHALS	13
ARTICLE 230: IDENTIFICATION OF VEHICLES (PROTOTYPE AND URBANCONCEPT)....	ERROR! BOOKMARK NOT DEFINED.

5. COMPETITION SCHEDULE	13
6. TROPHIES, PRIZES AND AWARDS	15
ARTICLE 231: AWARDS PRESENTATION	15
7. MISCELLANEOUS TERMS AND CONDITIONS	16
ARTICLE 232: TRAVEL ALLOWANCE	16
ARTICLE 233: ACCOMMODATION	16
ARTICLE 234: INTERNET ACCESS	16
ARTICLE 235: SHELL ECO-MARATHON VEHICLES MUST BE COMPETITION-READY	16
ARTICLE 236: THIRD PARTY RIGHTS	16
ARTICLE 237: RELEASE FROM LIABILITY	16
ARTICLE 238: CANCELLATION	17

1. GENERAL

The Shell Eco-marathon 2018 Global Rules, [Chapter I](#) and the Shell Eco-marathon South Africa 2018 Rules, Chapter II apply during the entire duration of the participants' presence on site. The organisers reserve the right to modify any article of the present rules in both documents.

University of Johannesburg, address: c/o Kingsway and University Road, Auckland Park, 2000, Johannesburg, South Africa, hereafter known as "event organiser" or "organiser" is the organiser of Shell Eco-marathon South Africa 2018, the "event".

The event will be held from October 25 – 28, 2018 at Zwartkops Racetrack, Pretoria, South Africa (the "site").

Teams will have access to paddock from Thursday, October 25 at 14:00 after they have checked in. Teams must clear their garage in the paddock area by 18:00 on Sunday, October 28 at the latest.

Teams may invite guests to come to Shell Eco-marathon South Africa on public opening days, which are on October 26 – 28, 2018. Admission to the event is free.

For registration or questions, contact shell-eco.marathon@shell.com.

ARTICLE 200: PARTICIPANTS

Teams will be allowed to bring a maximum of fifteen team members (including the team manager and faculty advisor) to the competition. Only these fifteen team members will receive a wristband identifying them as participants to the event.

ARTICLE 201: DRIVERS

Drivers must be at least 16 years old on the day of the competition. In all cases, drivers must be students/pupils of the educational institution in question. Proof of enrolment must be provided upon request. A driver's license is not mandatory.

ARTICLE 202: TEAM NAMES

Teams are permitted to select names that are appropriate to their research and the event. Names that are offensive or disrespectful to others who may be participating will not be considered appropriate. Generally, this means teams should avoid using names with religious or political connotations.

ARTICLE 203: INSURANCE

University of Johannesburg has as a standard procedure and liability insurance for large scale events.

Damages concerning theft or other damage occurring to team vehicles, cars and/or equipment in the paddocks are not covered by this insurance policy.

Damages coming from inappropriate behaviour will not be covered.

University of Johannesburg shall not be held liable in the event of unauthorised use of the track outside the regularly scheduled hours for practice and competition.

University of Johannesburg shall not be held liable in the event of unauthorised driving of a team participating vehicle outside of the track (main track and the test track if applicable).

ARTICLE 204: DAMAGES NOT COVERED BY THE EVENT ORGANISER

Any damage caused by drivers or teams to track facilities and surroundings and/or to Shell Eco-marathon facilities shall be charged to the team having caused said damage. The waiver will be used to cover these damages (see [Article 205](#)), but liability is not limited to this amount.

ARTICLE 205: MANDATORY DOCUMENTS

The organiser will ask the team manager and the team's bank account holder to sign an official waiver before the event allowing them to charge the corresponding amount in case of damage or loss of the following items:

- Transponder;
- Joulemeter or Liquid Flowmeter;
- Electrical connections and accessories;
- Damage to track facilities caused by the Team; and/or
- Failure to return the borrowed items intact and undamaged;

The organiser will also ask all team members to sign an official photo/video rights release form.

ARTICLE 206: PARTICIPANT CHECK-IN: OPENING HOURS AND CHECK-IN PROCESS

On Thursday, October 25, participant check-in will be open from 14:00 to 17:00. The team must be checked in before it can access the paddock area.

The organiser will check if the team manager has signed and returned all mandatory documents before the start of the competition and will not authorise entry to the event if the documents have not been completed and signed.

1. The team manager, driver and reserve driver must come to the participant check-in desk.
2. The team manager, driver and reserve driver must present a piece of valid photo ID.
3. Each team member must collect their wristband and put it on to prove they have checked in.
4. The team manager will collect the vehicle stickers.
5. The team can then access their garage in the paddock to unload their vehicle and equipment if the paddock area is open.

ARTICLE 207: VEHICLE DELIVERY AND PICK-UP

Each team shall be responsible for organising and paying for the transport and shipping of their vehicle. University of Johannesburg shall not pay for the transport and shipping of the participant's vehicle and in no way shall any invitation from University of Johannesburg be construed as a guaranty to pay for such costs.

If a freight-forwarder is delivering your vehicle and equipment to the track, please take the following information into account.

The delivery and pick-up address is:

Zwartkops Racetrack
Shell Eco-marathon South Africa
R55 Road,
Pretoria West 0138
South Africa

The contact person is: Tanya Human 0027 82 390 6016.

There will be free storage facilities available at Zwartkops raceway from Monday, October 22 for competing vehicles. You may have your vehicle delivered directly to Zwartkops from this date.

Vehicles must be picked up before Monday, October 29 12:00 noon.

The track will not be providing any equipment such as forklifts to load and unload crates/equipment.

ARTICLE 208: ORDERING MANDATORY EQUIPMENT

This article applies to teams that do not yet have the required equipment in their possession. The following equipment is mandatory and must be purchased via the Organiser (see the Shell Eco-marathon E-shop [here](#)):

Standard fuel tanks shall be obtained from the Organiser. These tanks are mandatory and shall not be modified.

- Prototype: 250 cc

2. SAFETY

The organisers are determined to achieve GOAL ZERO, NO HARM, NO LEAKS. Goal Zero means carrying out this event safely so that we ensure that there is no harm to people, no damages to assets, and no detriment to the environment.

GOAL ZERO PRINCIPLES

In order to meet our Goal Zero initiatives, we need to apply the Health, Safety, Security and Environment (HSSE) Golden Rules.

The three HSSE Golden Rules are, YOU and I:

- Comply with the law, standards and procedures;
- Intervene in unsafe and non-compliant situations; and
- Respect our neighbours.

The organisers will monitor and manage the event using a safety team. The purpose of the safety team is to promote good practices, challenge unsafe conditions and behaviours, and assist the teams any way that they can. If a participant is asked for cooperation by the safety team, then they should treat this with seriousness and comply with all reasonable requests.

Team managers shall be responsible for enforcing the following regulations, which are drafted in the best interests of all participants and the success of the event, with all participants in their team. Any regulatory non-compliances will be subject to the penalties stated in Chapter I.

We expect all participants to comply with all safety rules, intervene if they notice any unsafe and non-compliant situation and show respect during the event. This is to ensure that we have a safe and successful event as we aim that everyone will enjoy and go home safely after the event. As such participating teams must:

- Comply with all rules set by the organisers. The rules are put together in the interest of everyone's safety and security;
- Participants must use proper Personal Protective Equipment (PPE) when working on their vehicles i.e. gloves, safety glasses, ear plugs, coveralls, etc.;
- Listen and comply with the instructions provided by any of the organisers or personnel acting on behalf of the organisers;
- The organisers reserve the right to disqualify a team and to order them to either "stop work" until the matter in question is rectified or to be "dismissed from the competition area" for not complying with any safety rules;
- Teams that are found to be in violation of any of these rules will be issued a formal written warning and this will be registered against the team in question. If a team receives three (3) of such warnings, they will be automatically disqualified from the competition; and
- The organisers reserve the right to disqualify the team immediately, depending on the gravity of the offense, without recourse to warnings.

Health is also a main concern. If you are currently under medication, please bring enough medicine for the duration of the event. Don't forget to bring your medical prescription.

To achieve this and fulfil our duty of care to both participants and visitors, the organisers will work with all relevant agencies (including local government, national regulators and venue related stakeholders) to put plans, policies and procedures in place to manage risk and potential emergency situations that arise.

ARTICLE 209: SMOKING

Shell draws participants' attention to the fact that smoking is extremely harmful to health.

Smoking (including the use of electronic cigarettes) is only allowed in the external designated smoking areas.

ARTICLE 210: DRUGS AND NARCOTICS

South African law strictly forbids the possession, distribution and the consumption of illegal drugs. The organisers strictly forbid the use and distribution of narcotics for anyone attending or participating in this event.

Any drug and narcotics related breach of the regulations will be treated as equivalent to a third infraction of the team which will result in immediate team disqualification (see Chapter I, Article 8), even if no prior violation has occurred.

ARTICLE 211: ALCOHOL

Shell draws participants' attention to the fact that the abuse of alcohol is harmful to health.

Alcohol is strictly prohibited at any time in the paddock and in all track-related areas (e.g. Technical inspection, start and finish area, etc.). Access to the paddock area is strictly prohibited for anyone under the influence of alcohol.

The organisers reserve the right to intervene and remove from site any person(s) found to be, in their sole and absolute determination, in a state unfit to participate. Any behaviour deemed by the organisers to be unfit and/or inappropriate may be subject to the penalties laid out in Chapter I up to and including, immediate team disqualification even if no prior violation has occurred.

ARTICLE 212: FIRE SAFETY

In line with the South African regulations that govern the event, the organiser will assess and submit a policy and procedure for managing fire associated risks.

In light of previous fire-related incidents, the organisers stress that teams must take managing fire risks with utmost seriousness. Any improper fuel storage or poorly mitigated fire risks deemed to contribute to an unsafe condition will lead to the removal and disposal of the offending items. Team managers will be required to ensure that their team strictly adheres to the rules and guidance provided.

Each team must have a working fire extinguisher in their garage in the paddock.

ARTICLE 213: TOOLS AND WORK EQUIPMENT

As the event will be held in South Africa, the organisers and site owner have to ensure that work equipment at the venue is tested to the standards required by South African legislation. Teams must ensure that the tools and equipment that they bring to the event are compliant to such standards. The

following tools and equipment must have certification to prove that they are in a good working order as deemed by the organisers:

- Electrical equipment: this must be properly rated for South Africa and have a suitable test certificate to show that it is fit for use. During the event, the safety team will be patrolling the paddock to check for compliance.
- Cutting or grinding equipment: e.g. Safety guards protecting the cutting wheel must be in place and fixed for use.
- Personal welding equipment is not allowed.
- All air compressors must have a suitable test certificate.

Notwithstanding such test certificates, in the event the organisers are of the view that such tools and equipment is/are unsafe, the organisers have the sole and absolute right to require the immediate removal of the item.

ARTICLE 214: TEST TRACK

There will be a test track available for Participants at this Event. Team can only access the test track if they have passed the safety inspection and under the surveillance of a track marshal. The test track opening times are the same as the main track opening times.

ARTICLE 215: PEDESTRIANS

With the exception of the track marshals or any other person duly authorised by them and under their control, no pedestrian is allowed on the track. Track reconnaissance by foot is forbidden. However, the organisers understand the need for teams to view the track, and a suitable time will be designated for this, and this will be advised during the mandatory briefing.

ARTICLE 216: PARTICIPANT DRONES

Unmanned aerial vehicles (UAVs), commonly known as drones, belonging to any private individual participant, are not allowed on site.

3. PADDOCK RULES

ARTICLE 217: PADDOCK ACCESS

Access to the garages in the paddock is permitted from 14:00 to 18:00 on Thursday, from 08:00 to 18:00 on Friday, Saturday and Sunday.

The Paddock will be closed between 18:00 and 08:00. Nobody can stay in the paddock area during this time.

Teams will be allocated garages to work in. The garages will be empty; teams must bring any equipment or material they need to work with themselves (tables, chairs, etc.).

ARTICLE 218: COMPLETE PADDOCK AREA HOUSEKEEPING

Each team will be allocated a garage in the paddock area to store and work on their vehicle upon check-in.

The team garages should meet the following requirements:

- Clean and orderly arrangement of vehicle, spare parts, tools, etc.;
- Electrical connections (e.g. cabling on ground to be duct taped or appropriately secured);
- Proper storage and handling of fuels and other flammable products;
- Clear segregation between food and toxic/noxious products;
- Fires are strictly forbidden in the entire garage;
- No electric kettles and stoves are allowed in the garages. Cooking using an open flame is strictly prohibited; and
- Only approved universal adaptors are to be used for all appliances and power tools.

Any infringement of the paddock area housekeeping rules will subject the team to a formal written warning. The safety team will be on hand to keep a close watch on the team's activities in the garage and to advise on safe practices.

The organisers will not be held responsible for any loss or damage to participants' personal belongings such as but not limited to passport, identity card, wallet, bag, money, equipment, tools, vehicle, etc. It is the responsibility of each participant to ensure that their property is taken care of during the event. Personal items should not be left lying around unattended. Please report loss of valuable items to the security team.

WASTE MANAGEMENT

Participants are responsible for the cleanliness of their immediate area in the pit and the surrounding environment, including waste management. To save energy and natural resources, participants are required to sort their waste and to place it in the appropriate containers and bins. Teams are reminded to adopt a green approach at this event, to recycle and reuse items, and avoid wastage. All liquid chemical waste must be disposed of according to the method advised on site. It must not be disposed of by pouring down the sink or drain.

ARTICLE 219: PROTECTIVE EQUIPMENT AND MATERIALS

Teams will share responsibility for safety matters and are required to provide the following for use at the event:

- Gloves for general work: leather or canvas;
- Gloves for handling fuel or motor oil: chemical resistant (nitrile gloves are recommended);
- Safety glasses for all team members (disposable types are permitted);
- Hearing protection for all team members (approved ear plugs or muffs);
- Duct tape to secure any cords or cables lying on the pit floor;
- Lift stands or appropriate raised platforms for vehicle tuning and repairs;
- Fire blanket to be visible in the paddock when working there;
- The organisers will provide fire extinguishers for the paddock area;
- Dust masks when required for specific work involving composite material, e.g. for grinding; and
- The organiser strongly advises participants to undertake work on prototype and UrbanConcept vehicles with appropriate overalls and clothing and to avoid synthetic underwear or clothing.

ARTICLE 220: MATERIAL SAFETY DATA SHEETS (MSDS)

Except for approved race fuels or energy sources, upon request by the organisers, all teams should be able to provide the MSDS of any products they use in their pits e.g. solvents, cleaning agents, chemicals, etc.

ARTICLE 221: SAFETY WALKS

Structured safety walks will be run during the whole event, day and night, to ensure that safety rules are complied with.

ARTICLE 222: EMERGENCY EXITS

Fire and emergency exits must be kept clear anytime from any obstructing equipment or vehicles.

4. COMPETITION/PRACTICE

ARTICLE 223: DEFINITION OF COMPETITION

Definition: For their attempt to be valid, Teams must complete 4 laps in a maximum time of 25 minutes with an average speed of approximately 25 km/h. (4 laps of 2400m).

Attempt: When the vehicle crosses the start line, an attempt is counted. Even if the vehicle stops near the start line, a new start will strictly not be granted for the attempt in question.

Results: All results are considered temporary until the official results are published on the Shell Eco-marathon website after the event.

In the event of any disputes, all decisions made by the race director are binding and final.

ARTICLE 224: START AND FINISH OF COMPETITION

Only vehicles in full working order e.g. complete chassis and body together, bearing the technical and safety inspection stickers, will be allowed in the queue to access the filling point and starting line.

The vehicle may be accompanied by a maximum of two people (in addition to the driver). Once the vehicle has left the starting line, all team members must leave the starting area.

Drivers must wait until the starting line is clear before starting their attempt. They must wait for a signal from the flag bearer (green flag) before starting and will carefully enter the track at the merging point on the track/pit lane.

At the starting line, vehicles will start one by one. Vehicles must be at a full stop and are not allowed any outside assistance during starting. Any pushing of the vehicle is prohibited.

At the finish line: participants must refrain from any work on their vehicle prior to inspection of the vehicle by the inspectors. Inspectors/marshals are the only people authorised to fill or top up the tank.

ARTICLE 225: RFID TAG ATTRIBUTION

Challenger events do not use the usual RFID tag system as seen at the main regional competitions. Teams will receive a team passport at check-in, where the technical team will record presence at the mandatory technical briefing as well as the number of attempts on track during the competition. It is the team's responsibility not to lose this card.

ARTICLE 226: FUEL CONSUMPTION CHECKS

A maximum of three team members per team including the driver may be present at the start and finish lines with their vehicle. They must have the requisite wristbands and ID badges identifying them as legitimate participants.

ARTICLE 227: PANEL INFORMATION

The organiser recognises participants' need to communicate with drivers using panel boards along the track. A dedicated panelling area is designated for this. Only two team members per team will be allowed in said panelling area at any time. Panelling outside this area is strictly forbidden.

ARTICLE 228: TIMEKEEPING

SHELL ECO MARATHON SOUTH AFRICA 2018

OFFICIAL RULES, CHAPTER II

All vehicles will be equipped with an electromagnetic transponder that will be fitted after vehicle inspection using adhesive tape or nuts, inside or outside the vehicle according to the vehicle's characteristics. The transponder must be returned at the reception at the end of the event.

ARTICLE 229: RACE DIRECTOR AND MARSHALS

The race director will be assisted by his team of track marshals, who will ensure that all Shell Eco-marathon rules are complied with on the track. The decision of the race director to disqualify or dismiss a team from the competition for non-compliance to competition rules shall be final and binding.

5. COMPETITION SCHEDULE

The final schedule will be confirmed every morning for the day at the mandatory technical briefing. The event organiser reserves the right to change this schedule at any time in case of poor weather conditions or any other unpredictable event.

THURSDAY, OCTOBER 25

14:00	17:00	Participant check-in open
14:00	18:00	Paddock open for checked-in Teams

FRIDAY, OCTOBER 26

09:00	12:00	Participant check-in open
08:00	18:00	Paddock open for checked-in Teams
10:00	18:00	Technical inspection open
12:00	13:00	Lunch break
13:30	14:00	Mandatory technical briefing
14:30	18:00	Track open for free practice

SATURDAY, OCTOBER 27

08:00	18:00	Paddock open for checked-in Teams
08:30	09:00	Mandatory Technical Briefing
09:00	12:00	Technical inspection
09:00	12:00	Track open for free practice
12:00	13:00	Lunch break
14:00	18:00	Track open for competition

SUNDAY, OCTOBER 28

08:00	18:00	Paddock open for checked-in Teams
08:30	09:00	Mandatory Technical briefing

SHELL ECO MARATHON SOUTH AFRICA 2018
OFFICIAL RULES, CHAPTER II

09:00	12:00	Track open for competition
12:00	13:00	Lunch break
13:00	16:00	Track open for competition
16:00	16:30	Awards ceremony
16:30	18:00	Departure, paddock cleaning

6. TROPHIES, PRIZES AND AWARDS

ARTICLE 231: AWARDS PRESENTATION

A trophy shall be handed to the winners in each category during the Prize giving ceremony.

ON-TRACK AWARDS

ICE	1 st place	10 000 Rand
Battery Electric	1 st place	10 000 Rand
Hydrogen	1 st place	10 000 Rand

OFF-TRACK AWARDS

Safety	2000 Rand
Perseverance and spirit of the event	2000 Rand
Technical innovation	2000 Rand

All teams will receive a participation certificate in the week following the competition.

7. MISCELLANEOUS TERMS AND CONDITIONS

ARTICLE 232: TRAVEL ALLOWANCE

Each team is responsible for all costs and expenses associated with participating in the event. No travel allowance will be issued to any participating teams.

ARTICLE 233: ACCOMMODATION

Participants are responsible for making their own hotel/accommodation bookings for the event. The Organisers will **NOT** be managing this for the teams, however teams can contact the organiser for a list of recommended hotels.

ARTICLE 234: INTERNET ACCESS

Each Team shall be responsible for their own internet access if they wish to use it.

ARTICLE 235: SHELL ECO-MARATHON VEHICLES MUST BE COMPETITION-READY

Teams are strongly advised to ensure that their vehicles are 100% complete and conform to the official rules and regulations before transport and shipping.

As such the organisers reserve the right to disqualify teams that arrive at the event with a vehicle that is not competition-ready and does not meet the requirements as listed in the official rules and regulations. This will be done in the interest of safety of the team members.

ARTICLE 236: THIRD PARTY RIGHTS

By entering, each team warrants and represents that its vehicle is original and does not infringe, defame or otherwise violate the rights and/or property of any third party; does not violate any laws or ordinances; and does not utilise, use or infringe the property of any third party including the property and rights of another team without express permission to do so. Each team further warrants that the possession, exploitation, use or distribution by that team of any intellectual property including without limitation patents, copyrights, designs, trade or service marks, whether registered or not, shall not infringe or misappropriate the intellectual property right of any third party. Each team shall indemnify the organisers against any loss or damage suffered or incurred by the organisers as a result of any claim that the use by a team thereof infringes the intellectual property right of any third party.

ARTICLE 237: RELEASE FROM LIABILITY

The organisers and its parent, affiliate and subsidiary companies and all of their respective officers, directors, employees, shareholders, representatives and agents shall have no liability and will be held harmless by team members and schools for any claim, action, liability, loss, injury or damage to any team member, schools and/or any other person or entity, including personal injury or death to any person or damage to personal or real property, due in whole or in part, directly or indirectly by reason of participation in this contest, or the acceptance, possession, use or misuse of a stipend and/or a prize (including any travel or related activity).

Without prejudice to the aforesaid, team members and schools acknowledge that they will read, understand, accept and execute an Assumption of Risk Waiver and Release from Liability Agreement provided by the organisers to participate in the event.

ARTICLE 238: CANCELLATION

The organisers reserve the right to modify, postpone or cancel the competition for any reason including force majeure due to, including but not limited to, adverse or extreme weather conditions, the occurrence of a natural disaster, acts of terrorism or safety concerns. No claims for compensation will be accepted.