

Competition Brief

Competition title
Aeronautical Engineering
Competition overview
<p>This competition will take 6 hours to complete</p> <p>It involves a panel repair task, an aircraft inspection and an aircraft wheel check</p> <p>Stage one: Internal qualifying / selection process with partner institutions.</p> <p>Stage two: Applicant registrations completed online between 01.10.19 – 20.10.19 (http://www.skillscompetitionwales.ac.uk).</p> <p>Stage three: Partner institutions will be informed of their place allocation depending on applications.</p> <p>Stage four: 2 heats will take place:</p> <p>Coleg Cambria Deeside 17th Jan 2020 (North)</p> <p>ICAT/CAVC- 11th Feb 2020 (South)</p>
Core Competencies
<ul style="list-style-type: none">• Perform a simple sheet metal repair scheme• Interpret drawings• Make the assembly shown in the drawing in accordance with Standard Practices (AC 43 – 13)• Remove and install an aircraft component• Inspect a given aircraft component such as the wheels and brakes• Complete an aircraft wheel check to industry standard• Demonstrate knowledge and understanding of reference manuals i.e. AC 43 – 13 Aircraft Standards Follow procedure as per instructions in Aircraft Maintenance Manuals
Entry criteria
The competition is intended for students and apprentices studying towards a Level 3 Aeronautical qualification.
Number by location/organisation
2 heats (North + South)
Capacity of 6 competitors in each heat
3 competitors per organisation
Brief
Both heats will consist of 3 identical tasks.

Task 1: Hand Skills – Panel Repair

Task 2: Aircraft Inspection

Task 3: Practical – Aircraft Wheel Check

Specific activities and tasks will be handed out on the day.

Infrastructure List

Resources, equipment available at the venue:

- Sheet metal tool kit
- Rivets
- Pneumatic drill
- Riveting gun
- Skin pins
- 2 Plates
- Jointing compounds
- Drawing
- Precision marking out instruments

Competition rules

Competition specific rules

- Only registered competitors may compete, having agreed T&Cs
- The timing for the task will only commence immediately after the judges' Health & Safety brief.
- Plan your time carefully to ensure that you are able to complete the task within the allotted time.
- Ensure that you have read and fully understood the task objective, the time allocated for the task and all supporting resource material provided within this Competitor Brief.
- If you are unsure about any aspect of the task then you may ask the task judge for guidance. It is important to note that depending on the nature of the question asked the judge may decide that guidance is not appropriate in the interest of the competition.
- When you are content with what is required you should commence your work.
- Should you sustain an injury which requires first aid treatment then you are to bring it immediately to the attention of the task judge who will determine the course of action required.

HEALTH & SAFETY

A Health & Safety brief will be conducted immediately prior to the task commencing. It is the individual's responsibility to take reasonable care of themselves and others whilst at work. This

includes the correct wearing of appropriate clothing and footwear for the activity being undertaken. Any specialised Personal Protective Equipment required for an activity will be made available by the competition host. Judges are to provide direction on any actions that are in contravention of the Health & Safety regulations and where appropriate they may deduct marks for such non-compliances. Continual disregard for Health & Safety by a competitor during a task may result in the task being terminated prematurely.

Generic competition rules

- Mobile phones to be switched off during competition activity.
- Listening to music via headphones is not permitted during competition activity.
- Any questions during competition activity should be addressed to the competition judging panel.
- Competitors should not communicate with other competitors during competition activity.
- It is the responsibility of each competitor to arrive on time for each competition session. No additional time will be allowed if you arrive late.
- Technical failure of your equipment should be reported immediately to the judging panel. Additional time will be allocated if the fault is beyond the control of the competitor.

Marking and assessment

Brief breakdown of marking and assessment.

Task 1: Hand Skills – Panel Repair 40%

Task 2: Aircraft Inspection 20%

Task 3: Practical – Aircraft Wheel Check 40%

Feedback and recognition

Individual and Group verbal feedback will be provided at the end of the competition. (Written feedback will not be provided)

No results or awards will be awarded on the day as marking will be quality assured.

Certificates of Participation will be issued on the day.

Medallists will be invited to a Celebration Event which will be held on 19th March 2020 at Sophia Hall, Sophia Gardens, Cardiff CF11 9XR from 12pm to 5 pm, where the First, Second and Third Awards will be presented.

<https://www.sophiagardens.wales/venue/the-sophia-hall.html>

Competition Lead

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Briff y Gystadleuaeth

Teitl y gystadleuaeth
Peirianeg Awyrenegol
Trosolwg o'r gystadleuaeth
Bydd y gystadleuaeth yn cymryd 6 awr i'w chyflawni Mae'n cynnwys tasg trwsio panel, archwilio awyren a gwirio olwyn awyren Cam un: Proses gymhwyso / dethol fewnol gyda sefydliadau partner. Cam dau: Cwblhau cofrestriadau ymgeiswyr rhwng 01.10.19 – 20.10.19 (http://www.skillscompetitionwales.ac.uk). Cam tri: Hysbysu sefydliadau partner o'u dyraniad lle yn ddibynnol ar geisiadau. Cam pedwar: Cynhelir 2 gymal: Coleg Cambria Glannau Dyfrdwy 17 Ionawr 2020 (Gogledd) ICAT/CAVC- 11 Chwefror 2020 (De) Cymwyseddau Craidd <ul style="list-style-type: none">● Cyflawni cynllun trwsio llen fetel syml● Dehongli lluniadau● Cydosod yr hyn a ddangosir yn y lluniad yn unol ag Arferion Safonol (AC 43 – 13)● Tynnu a gosod cydran awyren● Archwilio cydran awyren a roddir fel yr olwynion a'r brêcs● Cwblhau gwiriad olwyn awyren i safon y diwydiant● Arddangos gwybodaeth a dealltwriaeth o gyfeirlyfrau h.y. AC 43 – 13 Safonau Awyrennau Dilyn gweithdrefnau yn ôl cyfarwyddiadau'r Llawlyfrau Cynnal a Chadw Awyrennau
Meini prawf cystadlu
Mae'r gystadleuaeth hon ar gyfer myfyrwyr a phrentisiaid sy'n astudio tuag at gymhwyster Awyrenegol Lefel 3
Nifer fesul lleoliad/sefydliad
2 gymal (Gogledd a De) Mae lle i 6 chystadleuydd ym mhob cymal

Uchafswm o geisiadau gan bob lleoliad/sefydliad

3 chystadleuydd o bob sefydliad

Briff

Bydd 3 tasg unfath yn y ddau gymal.

Tasg 1: Sgiliau Llaw – Trwsio Panel

Tasg 2: Archwilio Awyren

Tasg 3: Ymarferol – Gwirio Olwyn Awyren

Bydd gweithgareddau a thasgau penodol yn cael eu cyflwyno ar y diwrnod

Rhestr Seilwaith

Adnoddau, cyfarpar sydd ar gael yn y lleoliad:

- Offer llen fetel
- Rhybedion
- Dril niwmatig
- Gwn rhybedion
- Pinnau croen
- 2 Blat
- Cyfansoddion uniadu
- Lluniad
- Offer marcio manwl

Rheolau'r gystadleuaeth

Rheolau penodol y gystadleuaeth

- Dim ond cystadleuwyr cofrestredig sy'n cael cystadlu, ar ôl cytuno â'r telerau ac amodau
- Bydd amseru'r dasg yn cychwyn yn syth ar ôl sesiwn briffio lechyd a Diogelwch y beirniaid.
- Cynlluniwch eich amser yn ofalus i sicrhau eich bod yn gallu cwblhau'r dasg yn yr amser dynodedig.
- Gwnewch yn siŵr eich bod chi wedi darllen a deall nod y dasg, amser dynodedig y dasg a'r holl ddeunydd atodol a ddarperir yn y Briff Cystadlu hwn.
- Os ydych chi'n ansicr ynglŷn ag unrhyw agwedd o'r dasg cewch ofyn i feirniad y dasg am arweiniad. Mae'n bwysig nodi y gallai'r beirniad benderfynu nad yw rhoi arweiniad yn briodol er lles y gystadleuaeth, yn ddibynnol ar natur y cwestiwn a ofynnir.
- Unwaith rydych chi'n fodlon â'r hyn sydd ei angen dylech ddechrau ar eich gwaith.
- Os gewch chi anaf sy'n gofyn am driniaeth cymorth cyntaf dylech hysbysu beirniad y dasg a fydd yn penderfynu pa gamau gweithredu y dylid eu cymryd.

IECHYD A DIOGELWCH

Cynhelir sesiwn briffio lechyd a Diogelwch yn union cyn i'r dasg ddechrau. Cyfrifoldeb yr unigolyn yw gofalu am ei hun ac eraill pan fo'n gweithio. Mae hyn yn cynnwys gwisgo dillad ac esgidiau sy'n briodol i'r gweithgaredd sy'n cael ei gyflawni. Bydd unrhyw Gyfarpar Diogelu Personol angenrheidiol ar gyfer gweithgaredd ar gael gan gynhaliwr y gystadleuaeth. Mae'n rhaid i'r beirniaid roi cyfarwyddyd ynghylch unrhyw weithredoedd sy'n torri rheoliadau lechyd a Diogelwch ac os yw'n briodol gallan nhw dynnu marciau am beidio â chydymffurfio. Gallai diystyru lechyd a Diogelwch yn barhaus gan gystadleuydd yn ystod tasg arwain at ddod â'r dasg i ben cyn ei hamser.

Rheolau cyffredinol y gystadleuaeth

- Dylid diffodd ffonau symudol yn ystod y gystadleuaeth.
- Ni chaniateir gwrando ar gerddoriaeth gyda chlustffonau yn ystod y gystadleuaeth.
- Dylid cyfeirio unrhyw gwestiynau yn ystod y gystadleuaeth at y panel beirniaid.
- Ni ddylai'r cystadleuwyr gyfathrebu gyda chystadleuwyr eraill yn ystod y gystadleuaeth.
- Cyfrifoldeb pob cystadleuydd fydd cyrraedd ar amser ar gyfer pob rhan o'r gystadleuaeth. Pe baech yn cyrraedd yn hwyr, ni roddir amser ychwanegol ichi.
- Pe bai rhyw wall technegol ar eich offer, dylid rhoi gwybod i'r panel beirniaid yn syth. Bydd amser ychwanegol yn cael ei roi os bydd y gwall y tu hwnt i reolaeth y cystadleuydd.

Marcio ac asesu

Manylion cryno marcio ac asesu.

Tasg 1: Sgiliau Llaw – Trwsio Panel 40%

Tasg 2: Archwilio Awyren 20%

Tasg 3: Ymarferol – Gwiriad Olwyn Awyren 40%

Adborth a chydabyddiaeth

Bydd adborth llafar, yn unigol ac mewn grŵp, yn cael ei roi ar ddiwedd y gystadleuaeth. (Ni roddir adborth ysgrifenedig)

Ni fydd unrhyw ganlyniadau na gwobrau'n cael eu dyfarnu ar y diwrnod oherwydd bydd angen sicrhau ansawdd y marcio.

Bydd Tystysgrifau Cyfranogi'n cael eu dosbarthu ar y diwrnod.

Bydd enillwyr medalau'n cael eu gwahodd i Achlysur Dathlu a gynhelir ar 19 Mawrth 2020 yn Neuadd Sophia, Gerddi Sophia, Caerdydd CF11 9XR rhwng 12pm a 5pm, lle y bydd y Gwobrau Cyntaf, Ail a Thrydydd yn cael eu cyflwyno. <https://www.sophiagardens.wales/venue/the-sophia-hall.html>

Arweinwyr y Gystadleuaeth

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