Trainer Application 2019

The second Collaborative Australian Postgraduate Sea Training Alliance Network (CAPSTAN) programme voyage is scheduled to depart from Hobart, Tasmania 29th April, 2019, arriving in Freemantle, Western Australia, 9th May, 2019. A pre-departure workshop will be held in Hobart from 26th April.

Collaborative Australian Postgraduate Sea Training Alliance Network (CAPSTAN) voyages focus on providing formal and informal training matched with relevant experiences related to physical, chemical, biological, and geological oceanography. This training voyage will consist of trainer run lectures and workshop sessions, practical hands-on experiences, sea training, and an assessment of student’s learning.

Please note that if your institution is a subscribed CAPSTAN member, your application will receive priority consideration during selection of the CAPSTAN trainers. CAPSTAN is committed to diversity and social inclusion and particularly encourages Aboriginal and Torres Strait Islander People to apply.

All short-listed applicants **must** pass a MNF medical to be approved to sail and must be endorsed and indemnified by their University/Institute or Organisation to participate. If you have any queries or are ready to submit your application please use the e-mail address: **fse.capstanapps@mq.edu.au**

This e-mail address is monitored once a week and we appreciate your patience whilst we acknowledge your application or answer your enquiry.

**Due date 31st September 2018**

*The Application form is found on the next page.*
1. Personal Information
   a. Name (First and Last): ________________________________
   b. Gender:    M/F/Other
   c. Nationality: ________________________________
   d. Australian Residency (add details if relevant): _____________________
   e. Address:
      Street Address __________________________________________
      City, State, Post Code _________________________________________
      Country ____________________________________________
   f. Email address: ____________________________________________
   g. Work phone: ______________________________
   h. Mobile phone: ____________________________________________

2. Institutional Information
   a. Higher Education Institute: ________________________________
   b. CAPSTAN Subscriber:    ☐ Yes ☐ No ☐ Unsure
   c. Position: ______________________________________________
   d. Publication record over the last 5 years:
      _________________________________________________________
      _________________________________________________________
      _________________________________________________________
      _________________________________________________________
      _________________________________________________________
   e. Title of primary current research project: ____________________
   f. Title of courses taught, if relevant: __________________________
   g. What teaching exercises have you done in the last 12 months?
      ☐ hands-on training ☐ laboratory/practical instruction
      ☐ university lectures ☐ other (please specify):
      _________________________________________________________
   h. What hands-on research equipment/techniques are you most excited to
      teach (select up to 3)?
      ☐ Coring ☐ Sediment Dredging ☐ Plankton ID
      ☐ nets/trawls ☐ Underway sampling ☐ clean/trace level
      ☐ Water/CTD ☐ Acoustics/profiling ☐ Bird ID
      ☐ Mammal ID ☐ Microscope work ☐ Smear Slides
      ☐ Other (1): ____________________________________________
      ☐ Other (2): ____________________________________________
      ☐ Other (3): ____________________________________________
3. Are you available and able to attend the entire length of the CAPSTAN program from 26th April until 10th of May 2019?
   □ Yes  □ No  □ Unsure

4. At-Sea Experience and Training
   a. Nominate the title of two lectures (45min to 1 hour) you would be interested in contributing to the CAPSTAN voyage and indicate main area(s)
      i. ______________________________________
         □ Chemistry  □ Biology  □ Geology  □ Physics
      ii. ______________________________________
         □ Chemistry  □ Biology  □ Geology  □ Physics
   b. Indicate your 1st, 2nd, and 3rd preference of workshops (2-3 hr) to lead:
      □ 1  □ 2  □ 3  Science Communication: General
      □ 1  □ 2  □ 3  Science Communication: Blogging
      □ 1  □ 2  □ 3  Science Communication: Social Media
      □ 1  □ 2  □ 3  Writing: Scientific methods
      □ 1  □ 2  □ 3  Writing: Data Reports
      □ 1  □ 2  □ 3  Writing: Cruise Reports
      □ 1  □ 2  □ 3  Quantitative skills (please specify):
                       ___________________________
      □ 1  □ 2  □ 3  Other (please specify):
                       ___________________________
      □ 1  □ 2  □ 3  Asking/Developing Research Questions
   c. Nominate three potential topics for end-of-voyage student presentations:
      i. ______________________________________
      ii. ______________________________________
      iii. ______________________________________
d. Please outline any relevant at-sea experience you have. This may include at-sea training and research experience, deep-water fishing or other educational/industry/touristic activities- Add rows as necessary (max. 500 words).

<table>
<thead>
<tr>
<th>Voyage /survey Name</th>
<th>Your Role (e.g. student, invited scientist, Chief Scientist, technical support, volunteer, trainer, etc.) and main activities performed (e.g. census counts, micropalaeontologist, technical support, oceanographer, atmospheric survey etc.)</th>
<th>Year</th>
<th>Duration at sea (days)</th>
</tr>
</thead>
<tbody>
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</table>

e. What do you think the most important skill for students interested in a future in marine sciences to have is?
5. Equipment Familiarity
Detailed below are some of the expected MNF-supplied equipment that will be on-board during the transit voyage. Please indicate which equipment you are familiar with and would you feel confident teaching to students as well as any other relevant skills in using on-board equipment.

(i) Standard laboratories and facilities

<table>
<thead>
<tr>
<th>Name</th>
<th>Confirmed on-board</th>
<th>Proficient</th>
<th>Familiar</th>
<th>No Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerosol Sampling Lab</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Chemistry Lab</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>Preservation Lab</td>
<td></td>
<td>X</td>
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<tr>
<td>Constant Temperature Lab</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Underway Seawater Analysis Laboratory</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>GP Wet Lab (dirty)</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>GP Wet Lab (Clean)</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>GP Dry Lab (Clean)</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>Sheltered Science Area</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>Observation deck 07 level</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walk in Freezer</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Clean Freezer</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Blast Freezer</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Ultra-Low Temperature Freezer</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>Walk in Cool Room</td>
<td></td>
<td>X</td>
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</tbody>
</table>

(ii) Specialised laboratory and facilities (May require additional MNF support)

<table>
<thead>
<tr>
<th>Name</th>
<th>Confirmed on-board</th>
<th>Proficient</th>
<th>Familiar</th>
<th>No Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modular Radiation Laboratory</td>
<td></td>
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<tr>
<td>Modular Trace Metal Laboratories</td>
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<tr>
<td>Modular Hazchem Locker</td>
<td></td>
<td>X</td>
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<tr>
<td>Deck incubators</td>
<td></td>
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<td></td>
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<tr>
<td>Stabilised Platform Container</td>
<td></td>
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</tbody>
</table>

(iii) Standard laboratory and sampling equipment

<table>
<thead>
<tr>
<th>Name</th>
<th>Confirmed on-board</th>
<th>Proficient</th>
<th>Familiar</th>
<th>No Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTD - Seabird 911 with 36 Bottle Rosette</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>CTD - Seabed 911 with 24 Bottle Rosette</td>
<td></td>
<td>X</td>
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<tr>
<td>LADCP</td>
<td></td>
<td>X</td>
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<tr>
<td>Sonardyne USBL System</td>
<td></td>
<td>X</td>
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<tr>
<td>Milli-Q System</td>
<td></td>
<td>X</td>
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<tr>
<td>Laboratory Incubators</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy Duty Electronic Balance</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Medium Duty Electronic Balance</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Confirmed on-board</td>
<td>Proficient</td>
<td>Familiar</td>
<td>No Experience</td>
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<td>--------------------------------------------------------</td>
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<tr>
<td>Light Duty Electronic Balance</td>
<td>X</td>
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<tr>
<td>Surface Net</td>
<td></td>
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<tr>
<td>Bongo Net</td>
<td>X</td>
<td></td>
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<tr>
<td>Smith Mac grab</td>
<td>X</td>
<td></td>
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<tr>
<td>Dissecting Microscopes</td>
<td>X</td>
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</tbody>
</table>

(iv) Specialised laboratory and sampling equipment

<table>
<thead>
<tr>
<th>Name</th>
<th>Confirmed on-board</th>
<th>Proficient</th>
<th>Familiar</th>
<th>No Experience</th>
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</thead>
<tbody>
<tr>
<td>TRIAXUS – Underway Profiling CTD</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Continuous Plankton Recorder (CPR)</td>
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<tr>
<td>Deep tow camera</td>
<td>X</td>
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<tr>
<td>Piston Coring System</td>
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<tr>
<td>Gravity Coring System</td>
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<tr>
<td>Multi Corer</td>
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<tr>
<td>XBox Corer - Only a temporary loan not available at all times</td>
<td>X</td>
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<tr>
<td>XBT System</td>
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<tr>
<td>Trace Metal Rosette and Bottles</td>
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<tr>
<td>Sherman epibenthic sled</td>
<td>X</td>
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<tr>
<td>Trace- metal in-situ pumps</td>
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<tr>
<td>LADCP</td>
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<tr>
<td>Rock Dredges</td>
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<tr>
<td>EZ Net</td>
<td></td>
<td></td>
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<tr>
<td>Rock saw</td>
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<tr>
<td>Portable pot hauler</td>
<td></td>
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<tr>
<td>Beam Trawl</td>
<td>X</td>
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<tr>
<td>Trawl doors (pelagic or demersal)</td>
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<tr>
<td>Stern Ramp</td>
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<tr>
<td>Trawl monitoring instrumentation (ITI)</td>
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<tr>
<td>Radiosonde</td>
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(v) Equipment and sampling gear requiring external support

<table>
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<tr>
<th>Name</th>
<th>Confirmed on-board</th>
<th>Proficient</th>
<th>Familiar</th>
<th>No Experience</th>
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<tbody>
<tr>
<td>Seismic compressors</td>
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<tr>
<td>Seismic acquisition system</td>
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(vi) Acoustic Underway systems

<table>
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<th>Name</th>
<th>Confirmed on-board</th>
<th>Proficient</th>
<th>Familiar</th>
<th>No Experience</th>
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<tbody>
<tr>
<td>75kHz ADCP</td>
<td>X</td>
<td></td>
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<tr>
<td>150kHz ADCP</td>
<td>X</td>
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<tr>
<td>Multi Beam echo sounder EM122</td>
<td></td>
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<tr>
<td>12kHz (100m to full ocean depth)</td>
<td>X</td>
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<tr>
<td>Name</td>
<td>Confirmed on-board</td>
<td>Proficient</td>
<td>Familiar</td>
<td>No Experience</td>
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<td>---------------------------------------------------------------------</td>
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<tr>
<td>Multi Beam echo sounder EM710 70-100kHz (0-1000m approx.)</td>
<td>X</td>
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<tr>
<td>Sub-Bottom Profiler SBP120</td>
<td>X</td>
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<tr>
<td>Scientific Echo Sounders EK60 (6 bands, 18kHz-333kHz)</td>
<td>X</td>
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<tr>
<td>Gravity Meter</td>
<td></td>
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<tr>
<td>Trace metal clean seawater supply</td>
<td>X</td>
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<tr>
<td>Biological Oceanography Underway Sensors</td>
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<tr>
<td>Polarimetric Weather Radar</td>
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<tr>
<td>Gravity Meter</td>
<td></td>
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<td></td>
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<tr>
<td>Trace metal clean seawater supply</td>
<td>X</td>
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**(vii) Atmospheric Underway Systems**

<table>
<thead>
<tr>
<th>Name</th>
<th>Confirmed on-board</th>
<th>Proficient</th>
<th>Familiar</th>
<th>No Experience</th>
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</thead>
<tbody>
<tr>
<td>Nephelometer</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>MAAP (multi angle absorption photometer)</td>
<td>X</td>
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<tr>
<td>SMPS (scanning mobility particle sizer)</td>
<td>X</td>
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<tr>
<td>Radon detector</td>
<td>X</td>
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<tr>
<td>Ozone detector</td>
<td>X</td>
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<tr>
<td>Manifold instrumentation (intake temperature and humidity)</td>
<td>X</td>
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<tr>
<td>Picarro spectrometer (analysis of CO₂/CH₄/H₂O)</td>
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<tr>
<td>Aerodyne spectrometer (analysis of N₂O/CO/H₂O)</td>
<td>X</td>
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<tr>
<td>O₂ analyser</td>
<td>X</td>
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<tr>
<td>Manifold instrumentation (intake temperature and humidity)</td>
<td>X</td>
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<tr>
<td>CCN (Cloud Condensation Nuclei)</td>
<td>X</td>
<td></td>
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<tr>
<td>MOUDI (Micro-Orifice Uniform Deposit Impactors)</td>
<td>X</td>
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<tr>
<td>NOx monitor</td>
<td>X</td>
<td></td>
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<tr>
<td>Polarimetric Weather Radar</td>
<td>X</td>
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**(viii) Underway Seawater Instrumentation**

<table>
<thead>
<tr>
<th>Name</th>
<th>Confirmed on-board</th>
<th>Proficient</th>
<th>Familiar</th>
<th>No Experience</th>
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</thead>
<tbody>
<tr>
<td>Thermosalinograph</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluorometer</td>
<td>X</td>
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<tr>
<td>Optode</td>
<td>X</td>
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<tr>
<td>PCO₂</td>
<td>X</td>
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</table>
Other relevant skill/s that could be taught on board.

*Please note:* The inclusion of external equipment needs to be discussed with CAPSTAN and MNF staff prior to approval for use on board. Our focus is for training-delivered using on-board MNF supplied-equipment that is available every year to the CAPSTAN program. CAPSTAN is not in a position to buy equipment and is not a research or piggy-back research-style voyage.

250 words max.

When completed please submit as a word or pdf file to fse.capstanapps@mq.edu.au

**Due date:** 31st September 2019.