Filtered, paste and thickened tailings is developing into a mature technology with wide application in mine tailings management. Several large tonnage operations are being developed based on paste and filtered tailings systems.

The successful implementation of filtered, paste and thickened tailings technology is dependent on a sound understanding of slurry colloidal behavior, thickening and thickener operation, filtration, rheology, pump and pipeline transport systems, conveyor transport and disposal methodologies.

The course objectives are:
- An introduction to the fundamental concepts related to dewatering, transportation and deposition of filtered, paste and thickened tailings.
- To demonstrate the application of these concepts to the design and implementation of appropriate cost effective tailings systems.

The Colorado School of Mines will award 2.3 Continuing Education Units (CEU's) upon successful completion of this course.

The intensive four-day course consists of 14 lecture and laboratory demonstration sessions. Each participant is issued with a set of notes and reference materials.

The course is presented by Prof. Andy Fourie of the University of Western Australia, and senior staff from Paterson & Cooke. Key presenters are:

- Andy Fourie ~ Management and disposal of mining waste, minefill, soil mechanics, tailings behavior, paste technology and environmental geomechanics.
- Mike Cook ~ Thickening and separation technology including equipment optimization and modernization, mechanical and process commissioning, site audits, upgrades and retrofits.
- Robert Cooke ~ Rheology, slurry pipeline hydraulics and design.
The course is designed for all professionals involved in filtered, paste and thickened tailings applications, including:

- Geotechnical engineers
- Chemical and mineral processing engineers
- Mechanical engineers
- Operations engineers
- Consulting and design engineers.

The course will be held from Tuesday, June 16, through Friday, June 19, 2020 on the campus of the Colorado School of Mines in Golden, Colorado.

The course registration fee is $2,495 (US) if received by April 20, 2020. The fee is $2,695 (US) after that date. Payment must accompany the application form. Enrollment applications will be accepted in the order received. To register on-line, use the following web address:

http://csmspace.com/register/600

The sponsor reserves the right to cancel the course and return registration fees if enrollment is insufficient. Personnel substitutions may be made at any time without penalty. Cancellations will be charged a $275 service fee. No refunds will be made to participants who fail to substitute or cancel at least five working days prior to the start of the course.

Registration Enquiries: Continuing and Professional Education Services, Colorado School of Mines, 1600 Jackson St., Suite 190, Golden, CO 80401. Tel: 303-384-2690; Fax 303-384-2695; Learn@mines.edu

Technical Enquiries: Matt Treinen, Matt.Treinen@PatersonCooke.com

### Who Should Attend

Geotechnical engineers
Chemical and mineral processing engineers
Mechanical engineers
Operations engineers
Consulting and design engineers.

### Dates & Venue

The course will be held from Tuesday, June 16, through Friday, June 19, 2020 on the campus of the Colorado School of Mines in Golden, Colorado.

### Fees & Registration

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### Contact

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Technical Enquiries: Matt Treinen, Matt.Treinen@PatersonCooke.com

### Course Agenda

<table>
<thead>
<tr>
<th>Session</th>
<th>Tuesday June 16</th>
<th>Wednesday June 17</th>
<th>Thursday June 18</th>
<th>Friday June 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:45–8:00</td>
<td>Tea/Coffee</td>
<td>Tea/Coffee</td>
<td>Tea/Coffee</td>
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<tr>
<td>08:00–10:00</td>
<td>Registration (until 8:10) Course Introduction Tailings Introduction</td>
<td>Filtration Fundamentals, Technology and Testing Considerations</td>
<td>Geotechnical Properties of Tailings</td>
<td>Methods of Disposal Stability Issues</td>
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<tr>
<td>10:00–10:30</td>
<td>Coffee break</td>
<td>Coffee break</td>
<td>Coffee break</td>
<td>Coffee break</td>
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<tr>
<td>12:00–13:00</td>
<td>Lunch</td>
<td>Lunch</td>
<td>Lunch</td>
<td>Course ends</td>
</tr>
<tr>
<td>13:00–14:30</td>
<td>Thickener Technology Thickener Operation and Control</td>
<td>Conveyor Transport and Stacking Laboratory Visit Overview</td>
<td>Tailings Deposition Strategies Case Study</td>
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<tr>
<td>14:30–15:00</td>
<td>Coffee break</td>
<td>Coffee break</td>
<td>Coffee break</td>
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<tr>
<td>15:00–17:00</td>
<td>Rheology Improving Thickener Installations</td>
<td>Laboratory Demonstrations</td>
<td>Case Studies</td>
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<tr>
<td>Evening</td>
<td>Social Function</td>
<td>Free evening</td>
<td>Free evening</td>
<td></td>
</tr>
</tbody>
</table>

Note: The agenda is presented for information purposes only and illustrates the topics that will be covered. Adjustments to the schedule or content are not expected, but may be required at the organizer’s discretion.