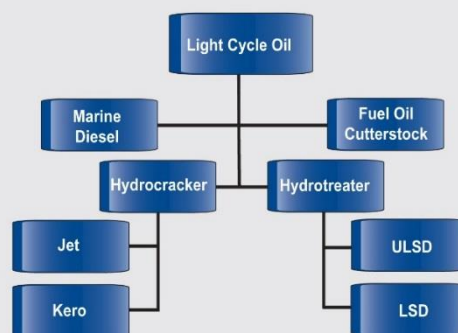




PE233: Hydro treating & Hydrocracker Technology

Training Description:

This intensive course covers a complete and up-to-date overview of the hydrocracking and hydrotreating process technology. It covers the hydrocracking and hydrotreating reactions; the feed preparation and hydrocracking process; the hydrocracking catalyst, process variables and hydrocracking yields; the investment and operating costs and modes of hydrocracker operation; the isocracking-hydrocracking for superior fuels and lubes; and the UOP uncracking process for hydrocracking.

The course will also discuss the hydrotreating catalysts; the naphtha and distillate hydrotreating and aromatics reduction; the reactions, process variables and construction and operating costs; the Chevron lummus global RDS/VRDS hydrotreating-transportation fuels from the bottom of the barrel; the selective hydrogenation processes, UOP unionfining technology, UOP RCD unionfining technology and UOP catalytic dewaxing process; and the UOP unisar process for saturation of aromatics including Chevron lummus global ebullated bed bottom-of-the-barrel hydroconversion (LC-fining) process.

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Apply and gain a comprehensive knowledge on hydrocracking and hydrotreating process technology
- ✓ Discuss the hydrocracking and hydrotreating reactions
- ✓ Illustrate feed preparation and hydrocracking process
- ✓ Identify hydrocracking catalyst, process variables and hydrocracking yields
- ✓ Carryout investment and operating costs and modes of hydrocracker operation
- ✓ Recognize isocracking-hydrocracking for superior fuels and lubes
- ✓ Apply UOP uncracking process for hydrocracking
- ✓ Identify hydrotreating catalysts and apply naphtha and distillate hydrotreating and aromatics reduction
- ✓ Determine reactions, process variables and construction and operating costs
- ✓ Explain chevron lummus global RDS/VRDS hydrotreating-transportation fuels from the bottom of the barrel
- ✓ Carryout selective hydrogenation processes, UOP unionfining technology, UOP RCD unionfining technology and UOP catalytic dewaxing process
- ✓ Illustrate UOP unisar process for saturation of aromatics including Chevron lummus global ebullated bed bottom-of-the-barrel hydroconversion (LC-fining) process

Training Designed for:

This course is intended for all Engineering and Operations Staff. Further, the course is suitable for Maintenance, Facility Integrity, Pipelines/Piping, Quality, Health, Safety and Environmental Personnel who are seeking to improve their knowledge and skills on refinery processes and gain exposure on refinery concepts and technology including the operation, safety and control aspects.

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client's learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

DAY ONE:

- ❖ PRE-TEST
- ❖ Introduction to Hydrocracking
- ❖ Hydrocracking Reactions
- ❖ Feed Preparation
- ❖ The Hydrocracking Process
- ❖ Hydrocracking Catalyst
- ❖ Recap

DAY TWO:

- ❖ Process Variables
- ❖ Hydrocracking Yields
- ❖ Investment & Operating Costs
- ❖ Modes of Hydrocracker Operation
- ❖ Isocracking-Hydrocracking for Superior Fuels & Lubes

DAY THREE:

- ❖ UOP Unicracking Process for Hydrocracking
- ❖ Hydrotreating Catalyst
- ❖ Naphtha & Distillate Hydrotreating
- ❖ Aromatics Reduction
- ❖ Reactions

DAY FOUR:

- ❖ Process Variables
- ❖ Construction & Operating Costs
- ❖ Chevron Lummus Global RDS/VRDS Hydrotreating-Transportation Fuels from the Bottom of the Barrel
- ❖ Selective Hydrogenation Processes
- ❖ UOP Unionfining Technology
- ❖ **Practical Sessions**
 - This hands-on, highly-interactive course includes real-life case studies and exercises

DAY FIVE:

- ❖ UOP RCD Unionfining Process
- ❖ UOP Catalytic Dewaxing Process
- ❖ UOP Unisar Process for Saturation of Aromatics
- ❖ Chevron Lummus Global Ebullated Bed Bottom-of-the-Barrel Hydroconversion (LC-Fining) Process
- ❖ Course Conclusion
- ❖ POST-TEST and EVALUATION

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

TBA as per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

Aisha Relativo - Training & Career Development Manager

aisha@cmc-me.com / training@cmc-me.com

Tel.: +971 2 665 3945 or +971 2 643 6653 | Mob.: +971 52 2954615