

Occupational Periodisation & Heat Stress Management

7 – 9 July 2021 (Wednesday – Friday) | 9am – 6pm

Register by 4 June 2021

Workshop Venue: MD9 (Level 1), 2 Medical Drive, National University of Singapore

Practical Session: M14, National University of Singapore



Programme Code: TGS-2020513796 (SSG-Approved Course)

With the rise of global warming, the impact of heat on the health, safety, performance and productivity of heat-exposed occupations and sporting events are a growing concern. Organised by the Department of Physiology, NUS Yong Loo Lin School of Medicine, this three-day course is designed to equip workplace officers and trainers with the necessary knowledge and skills to design heat mitigation programmes and implement strategies to maximise work productivity/performance, health and safety of heat-exposed personnel under their charge.

Participants will gain relevant knowledge and skills in the areas of fundamentals of thermal physiology, principles of training periodisation, occupational heat management strategies, evidence-based risk factors for exertional heat stroke and engage in comprehensive case study discussions. This course can potentially be adopted as a pre-requisite for officers and trainers who are responsible for the training prescription and supervision of workers/athletes involved in physical activities under heat-exposed conditions.

Who Should Attend

Physical trainers, officers, commanders and personnel who are involved in heat exposed occupations such as civil defence, military training and operations, workplace safety and sports

For Self-Funded Participants

CLICK HERE TO REGISTER

(Under Member of Public; Short Course)

For Enquiries & Corporate Registrations

Contact Ms Zarinna at nusmedcet@nus.edu.sg

Please note that the scheduled course run will proceed only if the minimum class size is met.

Course Objectives

Upon completion of the course, participants will be able to:

- Describe and identify risk factors for exertional heat stroke
- Based on current scientific evidence, prescribe exertional illnesses including exertional heat stroke and training programmes for heat-exposed personnel
- Based on individual occupational/sporting needs, design and customise heat mitigation strategies

Pre-Requisites

- English literate
- Personnel with more than 2 years of experience as a trainer in civil defence, military training and operations, workplace safety, sports or other heat-exposed sectors

Course Programme

DAY 1: WEDNESDAY, 7 JULY 2021

| Time | Topic |
|---------|---|
| 9.00am | Course Introduction |
| 9.30am | Principles of Exercise Training and Periodisation I |
| 10.15am | Tea Break |
| 10.30am | Principles of Exercise Training and Periodisation II |
| 11.30am | Case/Scenario Discussions on Training Periodisation for Firefighters |
| 12.00pm | Lunch |
| 1.00pm | Practical Demonstration on Metabolic Exercise Testing |
| 2.00pm | Physiological Basis of Exercise Fatigue I |
| 3.00pm | Q&A Discussions & Tea Break |
| 3.30pm | Physiological Basis of Exercise Fatigue II |
| 4.30pm | Physiological Employment Standards for Physically Demanding Occupations |
| 6.00pm | End of Day 1 |

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DAY 2: THURSDAY, 8 JULY 2021

| Time | Topic |
|---------|---|
| 9.00am | Thermal Physiology Principles and Considerations for Firefighters |
| 10.15am | Tea Break |
| 10.30am | Impact of Exertional Hyperthermia on Health and Performance |
| 11.30am | Risk Factors of Exertional Heat Stroke |
| 12.30pm | Lunch |
| 1.30pm | Occupational Heat Management and Mitigation Strategies |
| 3.00pm | Q&A Discussions & Tea Break |
| 3.30pm | Practicum on PSI evaluation during Fire Fighting Trainings and Operations |
| 6.00pm | End of Day 2 |

DAY 3: FRIDAY, 9 JULY 2021

| Time | Topic |
|---------|--|
| 9.00am | Discussion on PSI Evaluation Practicum Data |
| 10.15am | Tea Break |
| 10.30am | Case Study I |
| 11.30am | Case Study II |
| 12.30pm | Lunch |
| 1.30pm | Practicum Assessment: Evidence-based Training Regime & Heat Management Programme |
| 3.30pm | Q&A Discussions & Tea Break |
| 4.00pm | Course Assessment - MCQ |
| 5.00pm | Course Wrap up & Final Discussion |
| 6.00pm | Photo Taking & End of Course |

Assessment

- Hands-on assignments and MCQ quizzes
- **Participants must pass the overall assessment component to be eligible for SSG funding**

Our Trainers

The lead trainers for this course are Assoc Prof Jason Lee Kai Wei and Dr Ivan Low Cherh Chiet. They will also be supported by a team of facilitators who possesses rich research experience in the fields of thermal physiology and human performance.

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Assoc Prof Jason Lee Kai Wei

*Deputy Director, Human Potential Translational Research Programme
Research Associate Professor, Department of Physiology
NUS Yong Loo Lin School of Medicine*

*Research Programme Lead on Heat Health and Work Productivity
NUS Global Asia Institute*

- A member of the WHO and WMO Report on Climate Change on Workers' Health and Productivity
- Chairs the National Work Group on Heat Stress Guidelines for Workers and the Scientific Committee on Thermal Factors at the International Commission on Occupational Health
- Co-runs a Human Performance and Applied Physiology lab in NUS
- Key research interests include fluid balance, thermoregulation and mitigation strategies for improving human performance
- Serves in various national and international panels related to human performance and safety



Dr Ivan Low

*Lecturer and Director, Continuous Education Training, Department of Physiology
Core Member, Human Potential Translational Research Program
NUS Yong Loo Lin School of Medicine*

- Leads curriculum design and teaches topics related to basic human physiology and exercise physiology
- Co-runs a Human Performance and Applied Physiology lab in NUS
- Key research interests include the area of thermoregulation and fluid balance to enhance human performance and cognition
- Possess multiple publications in the field of thermal physiology and brain functions

Course Fees

¹All self-sponsored Singaporeans aged 25 and above can use their \$500 SkillsFuture Credit to pay for the course. Visit <http://www.skillsfuture.sg/credit> to select the course.

²Mid-Career Enhanced Subsidy (MCES) - Singaporeans aged 40 and above may enjoy subsidies up to 90% of the course fee.

³Enhanced Training Support for SMEs (ETSS) - SME-sponsored employees (Singapore Citizens and PRs) may enjoy subsidies up to 90% of the course fee.

| | International Participants | Singapore Citizens ¹ | | Singapore PRs | Enhanced Training Support for SMEs ³ |
|--|----------------------------|---------------------------------|------------------------------------|---------------|---|
| | | 39 years old or younger | 40 years old or older ² | | |
| Full Course Fee | \$2850.00 | \$2850.00 | \$2850.00 | \$2850.00 | \$2850.00 |
| Less: SSG Grant Amount | - | \$1995.00 | \$1995.00 | \$1995.00 | \$1995.00 |
| Nett Course Fee | \$2850.00 | \$855.00 | \$855.00 | \$855.00 | \$855.00 |
| 7% GST on Nett Course Fee | \$199.50 | \$59.85 | \$59.85 | \$59.85 | \$59.85 |
| Total Nett Course Fee Payable, Including GST | \$3049.50 | \$914.85 | \$914.85 | \$914.85 | \$914.85 |
| Less Additional Funding if Eligible Under Various Schemes | - | - | \$570.00 | - | \$570.00 |
| Total Nett Course Fee Payable, Including GST, after additional funding from the various funding schemes | \$3049.50 | \$914.85 | \$344.85 | \$914.85 | \$344.85 |



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