CRM LESSON PLAN REPORT

Introduction to The Holistic Health and Fitness System (H2F) Sleep Readiness
805P-BT805005 / 1.3 ©

Approved
16 Jun 2022

Effective Date: 16 Jun 2022

SCOPE:
This lesson serves as an introduction to the Holistic Health and Fitness (H2F) System Sleep Readiness domain.

SECTION I. ADMINISTRATIVE DATA

All Course Masters /POIs Including This Lesson

Courses

Course Number	Version	Title	Phase	Status
None				

POIs

Course Number	Version	Title	Phase	Status
None				

Task(s) Taught(*) or Supported

Task Number	Task Title	Status
Individual		
None		
Collective		
None		

Reinforced Task(s)

Task Number	Task Title	Status
None		

Knowledge

Knowledge ID	Title	Taught	Required
None			

Skill

Skill ID	Title	Taught	Required
None			

Administrative/ Academic Hours

The administrative/academic (50 min) hours required to teach this lesson are as follows:

Academic	Resident Hours / Methods		
Yes	1 hr	5 mins	Discussion (Small or Large Group)
Yes	0 hrs	5 mins	Lecture
Total Hours (50 min):	1 hr	10 mins	

Instructor Action Hours

The instructor action (60 min) hours required to teach this lesson are as follows:

	Hours/Actions		
	0 hrs	5 mins	Classroom Breakdown
	0 hrs	5 mins	Classroom Setup
	0 hrs	30 mins	Facilitate Discussion
Total Hours (60 min):	0 hrs	40 mins	

Test Lesson(s)

Hours	Lesson Number Version	Lesson Title
None		

Prerequisite Lesson (s)

Hours	Lesson Number Version	Lesson Title
None		

Training Material Classification

Security Level: This course/lesson will present information that has a Security Classification of: U - Unclassified.

Foreign Disclosure Restrictions

FD3. This training product has been reviewed by the developers in coordination with the G10 CIMT TRADOC USA foreign disclosure officer. This training product cannot be used to instruct international military students.

References

Number	Title	Date
FM 7-22	Holistic Health and Fitness	01 Oct 2020

Student Study Assignment

None

Instructor Requirements

Review the Lesson materials and the FM 7-22, Holistic Health and Fitness manual prior to conducting the lesson.

Support Personnel Requirements

None

Additional Support Personnel Requirements

Name	Student Ratio	Qty	Man Hours
None			

Equipment Required for Instruction

ID - Name	Student Ratio	Instructor Ratio	Spt	Qty	Exp
None					

Materials Required

Instructor Materials:
FM 7-22, The Holistic Health and Fitness (H2F) manual, embedded lesson power point presentation, supporting video, and any Instructor notes.

Student Materials:
None

Classroom Training Area, and Range Requirements

ID - Name	Quantity	Student Ratio	Setup Mins	Cleanup Mins
None				

Ammunition Requirements

DODIC - Name	Exp	Student Ratio	Instruct Ratio	Spt Qty
None				

Instructional Guidance/Conduct of Lesson

NOTE: Before presenting this lesson, instructors must thoroughly prepare by studying this lesson and identified reference material.
Instructor shall review the lesson plan, FM 7-22, and all applicable references prior to conducting the lesson.

Proponent Lesson Plan Approvals

Name	Rank	Position	Date
adam.c.price2	Not Available	Approver	16 Jun 2022

SECTION II. INTRODUCTION

Method of Instruction:	Discussion (Small or Large Group)
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - NON-ICH (1:25) (Drill Sergeant certification required IAW TR 350-6.)
Time of Instruction:	5 mins

Motivator

NBA great LeBron James stated in a recent interview, Sportscasting.com, Kozlowski, Aug 2021 that his NBA longevity is greatly attributed to his incredibly detailed sleep habits and “Sleep is the best way for your body to physically and emotionally be able to recover and get back to 100 percent as possible”.

King James went on to say “Now, will you wake up and feel 100 percent? There are some days you don’t. So some days you feel better than others. But the more, and more, and more time that you get those eight [hours of sleep]—if you can get nine, that’s amazing.”

Terminal Learning Objective

NOTE: Inform the students of the following Terminal Learning Objective requirements.
At the completion of this lesson, you [the student] will:

Action:	Identify Holistic Health & Fitness (H2F) System Sleep Readiness.
Conditions:	In a classroom environment, given a requirement to identify the H2F sleep readiness domain, given an FM 7-22, student notes, the powerpoint presentation and the supported video.
Standards:	1. List the three principles that are crucial to sleep readiness with a maximum of one error. 2. Identify how to improve sleep readiness and list at least 3 ways to improve sleep readiness.
Learning Domain - Level:	Cognitive - Understanding
No JPME Learning Areas Supported	None

Safety Requirements

NOTES:
* Unit commanders will ensure all safety controls identified in the composite risk management worksheet are implemented prior to the start of training. Commanders will ensure all initial training period risk assessments are completed reflecting the conditions at the training site for the specific training period. Risk assessments are maintained at the training site, and are living, working documents and must be continually updated as conditions change. Composite risk management policy is IAW TR 385-2, paragraph 1-5.
* See Appendix D of this lesson plan for a blank fillable DD Form 2977, "Deliberate Risk Assessment Worksheet."
1. The safety and well-being of Soldiers during their IMT is critical to the success of the TRADOC training mission. Soldiers arriving at Army reception battalions come from many differing backgrounds and in differing levels of physical condition. Similarly, cadets and newlyappointedofficers also exhibit some of that diversity. Consequently, some may be at a greaterrisk of injury/illness. Safety directors with an IMT mission should develop and implement an aggressive accident prevention strategy to provide these Soldiers a training environment that facilitates their transition from civilian to military life.
2. The self-assessment guide in TP 385-1, The TRADOC Model Safety Program and Self-Assessment Guide (appendix B) and conditioning/obstacle course criteria (appendix C) consist of a series of checklists that provide a systematic, standardized means to evaluate/assess the compliance of program elements with directives, legal standards, and regulations. Each provides the user the appropriate reference for the requirement, as well as a recommended documentation to assess implementation. The self-assessment guide is not all inclusive of every safety requirement required by public law, statute, and regulation. Therefore, research applicable public law, statute, and regulation that pertain to your command and situation.
3. Initial Military Training (IMT)/military training, operations and tactical safety:

a. The safety of the IMT Soldier is critical to the success of the TRADOC mission to provide the Army with military occupational specialty qualified Soldiers. Initial Entry Soldiers are subject to stress and risk in the IMT environment because the living conditions, physical demands, and training tasks are unfamiliar and the Soldier is untried.
b. Close, consistent oversight and supervision by qualified Drill Sergeants, platoon sergeant, instructors, and cadre; responsive medical support; and living and training facilities free from known hazards are inherent requirements of the safety structure in place to protect the IMT Soldier. An effective mission-oriented safety program, together with regular, standardized evaluations of the IMT environment, effective training programs, and enforcement of training standards ensures a successful Soldierization program that sets high standards, provides positive role models, and reinforces essential Soldier skills.
c. The safety and the use of CRM is paramount to the training Soldier due to the high-risk training events that may be in encountered in advance or specialty schools such as Drill Sergeant, Airborne, and Ranger. The use of CRM is a vital component to safely train Soldiers while ensuring that training is realistic.
d. The risk level associated with all military training within Army and TRADOC schools are based upon a predetermined number of qualified instructors, when the ratio of students to instructors changes, the risk assessment must be relooked to ensure that the level of risk for the training remains within acceptable limits. Use TP 385-10, Appendix B, Table B-6 as a guideline for self-assessment in these areas.

SAFETY BRIEFING EXAMPLE:
a. Electrical Storms (when appropriate): Take precautions against anyone being hit by lightning.
b. Snake Bites (when appropriate): The most common poisonous snakes to be found on this range are _____. In training areas, they may be found in fighting positions and bunkers. Always observe an area very closely before training.
c. Heat Casualties (when appropriate): When you are active in a hot climate with high humidity, the body becomes overheated. You may become a possible casualty from the heatas the body temperature rises above normal temperature.
d. Cold Weather Injuries (when appropriate): Adequate dry clothing is the key to prevention of cold weather injuries . Supervisors at every level will ensure that their subordinates areadequately protected during cold weather.
e. Weapons Handling: Weapon muzzles must be pointed in the air and downrange at all times. During live-firing, all weapons must be presumed loaded and must, therefore, never be pointed at anyone or anything. Weapons must be loaded on command only. Before firing any exercise, the safety limits of the range must be pointed out and their purpose explained.

Risk Assessment Level

None

Environmental Considerations

NOTE: Instructor should conduct a risk assessment to include environmental considerations IAW the current environmental considerations publication, and ensure students are briefed on hazards and control measures.
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a. Based on its commitment to environmental protection, the Army will conduct its operations in ways that minimize environmental impacts. The Army will—
(1) Comply with all environmental laws and regulations. This includes federal, state, local, and Host Nation laws, some of which are outlined in TC 3-34.489, The Soldier and the Environment, 26 Oct 2001, Appendix B.
(2) Prevent pollution at the source by reducing, reusing, and recycling material that causes pollution.
(3) Conserve and preserve natural and cultural resources so that they will be available for present and future generations.
b. Units and installations will prepare an environmental risk assessment using ATP 5-19 and GTA 05-08-002.

Instructional Lead-in

The Holistic Health and Fitness (H2F) System (H2F) is the Army's primary investment in Soldier readiness and lethality, optimal physical and non-physical performance, reduced injury rates, improved rehabilitation after injury, and increased overall effectiveness of the Total Army. The system empowers and equips Soldiers to take charge of their health, fitness, and well-being in order to optimize individual performance, while preventing injury and disease.

Highly trained, disciplined, and fit Soldiers build cohesive teams. Our teams are strongest when we ensure each individual Soldier's performance is optimized. To accomplish this, we are bringing a cultural change to Soldier's perceptions of training for the demands of close combat. All Soldiers must

view their health and fitness as a critical requirement of membership in the Profession of Arms.

The H2F System provides a unified and holistic vision with an effective implementation strategy in order to improve the Army's culture of health and fitness. Investing in health and fitness benefits our Soldiers and their Families. It also ensures the sustainment of an agile and adaptive Army, ready to provide the nation with a professional, lethal, and decisive force that will win against any adversary.

SECTION III. PRESENTATION

TLO - LSA 1. Learning Step / Activity TLO - LSA 1. Identify the importance of H2F Sleep Readiness

Method of Instruction:	Discussion (Small or Large Group)
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - NON-ICH (1:25) (DRILL SERGEANT)
Time of Instruction:	10 mins
Media Type:	Oral Presentation / PowerPoint Presentation
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

Sleep is important because it sustains brain and physical health, cognition, the immune system, and recovery after physical and mental activity. Basically, it is the body's way to rest, repair, and recover. Sleep is crucial for tissue repair and hormone synthesis to maintain peak performance, both physically and mentally-in fact the human brain is the only organ that requires sleep. Sleep readiness ensures the Soldier's brain and body have adequately recovered so he or she can tolerate the repeated exposure to physical and mental stress.

Other benefits of sleep include:
Retention and storage of memories (brain processing function)
Improved vigilance, abity to reason logically, alertness, reaction time, creativity and sleep also boosts the immune system.
Sleep repairs and restores body tissues. Finally, sleep supports optimal social and emotional functioning and increases Soldiers ability to mitigate stress.
What are some other benefits of sleep?
Which sleep benefits do you feel are important in regards to performing your best as a Soldier? It's no secret getting enough sleep is a good thing, what are some of the reasons Soldiers do NOT get enough sleep at night?

Check on Learning:	Q. Why is sleep so important? What are some of the ways sleep is important? A. Sleep is important because it sustains brain and physical health, the immune system, and recovery after physical and mental activity. Sleep is the body's way to rest, repair, and recover. Sleep is crucial for tissue repair and hormone synthesis to maintain performance, both physically and mentally.
Review Summary:	You have just received a block of instruction regarding the importance of H2F Sleep Readiness. What are your questions pertaining to H2F Sleep Readiness?

TLO - LSA 2. Learning Step / Activity TLO - LSA 2. Identify the Sleep Readiness Principles

Method of Instruction:	Discussion (Small or Large Group)
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - NON-ICH (1:25) (Drill Sergeant)
Time of Instruction:	10 mins
Media Type:	PowerPoint Presentation
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

Sleep is crucial for tissue repair and hormone synthesis to maintain peak performance mentally and physically. Sleep sustains brain and physical health, cognitive abilities such as judgment, decision making, and situational awareness, the immune system, and recovery after physical activity.

1. Sleep duration:

Most Soldiers need 7 to 9 hours of sleep every 24 hours to maximize health and sustain performance. The more sleep Soldiers get, the greater their mental acuity, with faster response times, fewer errors, and fewer lapses in attention. Using good judgment, problem-solving, situational awareness, mood, resilience, and general wellbeing are also greatly improved.

2. Sleep timing

Human beings are diurnal, designed to be awake during the daytime and to sleep during the nighttime. A portion of the brain that serves as an internal clock—sensitive to the timing of sunrise in the morning and sunset in the evening—largely controls these sleep-wake tendencies. This sensitivity keeps the brain's clock synchronized with the outside world. During those hours that the brain's clock has learned are local daytime hours, the brain produces output that facilitates activity and wakefulness. During those hours that the brain's clock has learned are nighttime hours, it signals brain deactivation, thus promoting sleep. Maintaining a consistent sleep-wake schedule on both duty and non-duty days has the benefit of strengthening and reinforcing the internal wake- and sleep-promoting processes controlled by the brain's internal clock. These processes constitute the "circadian rhythm of alertness." Individuals who maintain consistent sleep-wake schedules (especially on arising at the same time each morning and experience their first exposure to daylight at the same time each day) derive the maximum benefits from the circadian rhythm of alertness, with well-consolidated sleep at night and optimum alertness during the daytime. A consistent and regimented schedule of sleep- and wake-related activities helps to lock in other biological systems associated

with circadian rhythms. These include hormone release, digestion, muscle strength, and cardiovascular performance. Circadian rhythms act in tandem with the need to sleep which builds throughout a day. These rhythms optimize the process of falling asleep, staying asleep, and ensuring quality

sleep.

3. The third sleep principle is sleep continuity.

The restorative value of sleep is determined not only by the duration and timing of the sleep period, but also by the continuity of the sleep period—that is, the extent to which the sleep period is continuous and uninterrupted. The sleeping brain cycles through non-rapid eye movement (known as NREM) and rapid eye movement sleep (known as REM or "dreaming sleep") every 90–120 minutes. The full benefit of sleep occurs when the brain completes 4–5 complete cycles. Non-rapid eye movement sleep makes up most of the first half of the night's sleep. During this type of sleep, the body releases hormones that help repair and rebuild muscles and replenish energy. There are three stages of non-rapid eye movement sleep: stage 1 (the lightest sleep stage), stage 2 (which accounts for approximately 50 percent of nighttime sleep), and stage 3 (the deepest and the most recuperative sleep stage). During sleep, the body

clears toxins that have accumulated throughout the day (as by-products of healthy brain functioning) from the brain; it also fixes and transforms new memories into usable knowledge. Both types of sleep are essential, and it is important that the brain cycles appropriately between non-rapid eye

movement and rapid eye movement sleep across the night. When sleep is interrupted or shortened, natural progression of sleep cycles are disturbed reducing the beneficial effects of the sleep.

Check on Learning:	N/A
Review Summary:	You have just received a block of instruction regarding Identify the Sleep Readiness Principles. What are your questions pertaining to Identify the Sleep Readiness Principles?

TLO - LSA 3. Learning Step / Activity TLO - LSA 3. Identify Sleep Banking

Method of Instruction:	Discussion (Small or Large Group)
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - NON-ICH (1:25) (Drill Sergeant)
Time of Instruction:	10 mins
Media Type:	PowerPoint Presentation
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

LSA 3 Sleep Banking:

How do you adapt to get enough sleep?

Soldiers, from the 509th Parachute Infantry Regiment, are shown during a 19-hour flight from Alaska to Australia trying to get some sleep on the floor and seats of a Royal Australian Air Force C-17 Globemaster, July 8, 2015, during Exercise Talisman Sabre 15. Soldiers, who are deployed, average just three hours of sleep a night, said Lt. Col. Kate E. Van Arman, medical director, Traumatic Brain Injury Clinic on Fort Drum, N.Y.

NEXT SLIDE

How Much Sleep is Enough?

1. Mission, situational, and operational tempo may prompt Soldiers and leaders to ask “what is the minimum amount of sleep needed to maintain military effectiveness?”
2. There is no clear threshold amount of sleep below which effectiveness is compromised and above which effectiveness is sustained. The relationship between sleep duration and cognitive readiness (and thus, military effectiveness) is best thought of as away, the question becomes: “How can the amount of sleep obtained by Soldiers be maximized, given the constraints imposed by the current mission?”

NEXT SLIDE

Promoting Healthy Sleep:

Sleep is essential for optimal performance and readiness. Three factors to promote healthy sleep include: Your sleep environment, making a good a pre-sleep routine, and a using a sleep schedule that conforms as closely as possible to the brain’s natural circadian rhythm of alertness.

1.SLEEP ENVIRONMENT
The area where you sleep very important. An optimal sleep environment is cool, dark, and quiet. Set the temperature at or below 67 degrees. Darken the room where you sleep, use blackout curtains and/or an eye mask. Remove any loud or annoying noise from where you sleep. Some individuals believe that they sleep better with music or a television on, that they can sleep anywhere, and that ambient noise does not bother them. Research clearly shows that this is not the case. Soldiers do not get good sleep on a cot in the tactical operations center. Although sleepers are not aware of it, environmental sounds cause brief arousals—a momentary speeding of the brain’s electro- encephalograph (known as EEG) activity during sleep—that effectively disrupt sleep continuity and reduce the restorative value of that sleep. Likewise, bright lights and excessively hot or cold environments can disrupt sleep continuity and reduce the restorative value of sleep.

2. PRE-SLEEP ROUTINE
Make a nightly routine of getting ready for sleep by winding down—such as listening to soothing music, reading, or taking a warm shower 30–60 minutes prior to bedtime tend to facilitate the transition to sleep. These routines will maximize sleep duration. Conversely, activities such as watching television, playing video games, using your cell phone, chatting online, and similar interesting or engaging activities tend to arouse the brain and delay sleep onset. These activities reduce the amount of sleep obtained and should be avoided during the pre-sleep wind-down period. Tobacco product use also be incompatible with sleep as the stimulant in nicotine tells the body to get active while it increases heart rate and alertness. Individuals experiencing significant stress often find relaxation techniques such as meditation and mindfulness exercises helpful.

3. SLEEP SCHEDULE
Plan to get 7-9 hours of sleep by sticking to a sleep schedule every day. You may need 10 hours in bed to get 7-9 hours of sleep. Your sleep efficiency may vary. Learn and know your sleep efficiency and plan for it.Adequate performance is best achieved by Soldiers who consistently get adequate sleep (7–9 hours) on a nighttime sleep-daytime wakefulness schedule aligned with the brain’s natural circadian rhythm of alertness. Both sleep duration and sleep continuity are maximized on such schedules. However, military

operations are often continuous (24-hours per day) and influenced by random and unpredictable events and requirements which is why Soldiers should know and apply sleep readiness in their lives today.

NOTE:
Sleep Environment-Ensure your sleep area is clean, cool, dark, and quiet.

Pre-Sleep routine-Make a pre sleep routine that promotes winding down such as listening to soothing music, reading, or taking a warm shower—30–60 minutes prior to bedtime, deep breathing, meditating and mindfulness exercises tend to facilitate the transition to sleep.

Avoid any stressful activities or blue screen (TV, Computer, cell phone) and tobacco use as all those will delay sleep onset.

Sleep Schedule-Make a sleep schedule, planning ahead to get 7-9 hours of sleep, and getting ready to sleep at the same time every night.

Check on Learning:	N/A
Review Summary:	You have just received a block of instruction regarding Sleep Banking. What are your questions pertaining to Sleep Banking?

TLO - LSA 4. Learning Step / Activity TLO - LSA 4. Identify how to improve Sleep Readiness

Method of Instruction:	Discussion (Small or Large Group)
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - NON-ICH (1:25) (Drill Sergeant)
Time of Instruction:	10 mins
Media Type:	PowerPoint Presentation
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

LSA 4 How to improve your Sleep

Identify Circadian Rhythm and Sleep Cycles
Sleep Cycles:
1. Two basic types of sleep: Rapid eye movement (REM) sleep and non-REM sleep (which has three different stages).

Each is linked to specific brain waves and neural activity.

2. You cycle through all stages of non-REM and REM sleep several times during a typical night, with increasingly longer, deeper REM periods occurring toward morning.

-Stage 1 non-REM sleep is the changeover from wakefulness to sleep. During this short period (lasting several minutes) of relatively light sleep, your heartbeat, breathing, and eye movements slow, and your muscles relax with occasional twitches. Your brain waves begin to slow from their daytime wakefulness patterns.

-Stage 2 non-REM sleep is a period of light sleep before you enter deeper sleep. Your heartbeat and breathing slow, and muscles relax even further. Your body temperature drops and eye movements stop. Brain wave activity slows but is marked by brief bursts of electrical activity. You spend more of your repeated sleep cycles in stage 2 sleep than in other sleep stages.

-Stage 3 non-REM sleep is the period of deep sleep that you need to feel refreshed in the morning. It occurs in longer periods during the first half of the night. Your heartbeat and breathing slow to their lowest levels during sleep. Your muscles are relaxed and it may be difficult to awaken you. Brain waves become even slower.

REM sleep first occurs about 90 minutes after falling asleep. Your eyes move rapidly from side to side behind closed eyelids. Mixed frequency brain wave activity becomes closer to that seen in wakefulness. Your breathing becomes faster and irregular, and your heart rate and blood pressure increase to near waking levels. Most of your dreaming occurs during REM sleep, although some can also occur in non-REM sleep. Your arm and leg muscles become temporarily paralyzed, which prevents you from acting out your dreams. As you age, you sleep less of your time in REM sleep. Memory consolidation most likely requires both non-REM and REM sleep.

What are Circadian Rhythms?

1. Circadian rhythms are physical, mental, and behavioral changes that follow a 24-hour cycle. Literally translated, from the word circa, or “around” and dia- from “day or 24 hours”.

2. Circadian rhythms respond primarily to light and dark and are important in determining the sleeping and feeding patterns of all animals, including human beings.

3. There are clear patterns of brain wave activity, hormone production, cell regeneration and other biological activities linked to this daily cycle.

Identify ways to improve Sleep Readiness.

Below are 15 ways to improve sleep readiness. Which ones can you use to improve your sleep readiness?

-Sleep longer, adjust or manage your schedule to allow for 7-9 hours of sleep per night. You may require more than 7-9 hours in bed to gain 7-9 hours of sleep.

-Go to bed and wake up at the same time every day.

-Exercise every day, preferably in the morning or afternoon.

-Plan ahead to get continuous sleep-avoid broken or interrupted sleep.

-Manage stress-Not all stress is bad however when Soldiers are unable to deal with excess stress their sleep can be affected. Manage stress with a positive attitude, get help when needed, exercise every day, always eat healthy (garbage in-garbage out), hydrate and perform a self-check on their own physical and mental fitness. Be proactive in their own wellness.

-Hydrate-Most people are dehydrated. Make a habit of drinking plenty of water with electrolytes, up to a gallon or more per day, per your own needs, activity and environmental factors.

-Get sunlight every day, preferably in the morning.

-Make a clean, quiet, dark and cool sleep environment.

-Make a pre sleep routine that promotes relaxation, winding down, and prepares you for sleep.

-Avoid blue screen (cell phone, TV, computer, etc.,) before bed.

-Eliminate, Avoid, reduce alcohol. Alcohol use will cause a variety of health and sleep issues.

-Avoid nicotine, especially before bed.

-Sleep bank.

-Identify and plan for periods of insufficient sleep, such as missions, duty, jet lag, work schedule, shift work, etc.

-When appropriate, consider taking a brief nap as needed.

Check on Learning:	What are three ways improve healthy sleep? 1. Sleep Environment-Ensure your sleep area is clean, cool, dark, and quiet. 2. Pre-Sleep routine-Make a pre sleep routine that promotes winding down such as listening to soothing music, reading, or taking a warm shower—30–60 minutes prior to bedtime, deep breathing, meditating and mindfulness exercises tend to facilitate the transition to sleep. Avoid any stressful activities, blue screen (TV, Computer, cell phone), alcohol and tobacco use as all those will delay sleep onset. 3. Sleep Schedule-Make a sleep schedule, planning ahead to get 7-9 hours of sleep, and getting ready to sleep at the same time every night.
Review Summary:	You have just received a block of instruction regarding tHow to improve your Sleep Readiness. What are your questions pertaining to Improving your Sleep Readiness?

TLO - LSA 5. Learning Step / Activity TLO - LSA 5. Identify the Impacts of Fatigue on Army Readiness

Method of Instruction:	Lecture
Mode of Delivery:	Blended Learning
Instr Type (I:S Ratio):	
Time of Instruction:	
Media Type:	Oral Presentation / PowerPoint Presentation
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

Take a moment to read and discuss the attached ppt slide Impacts of fatigue on Army Readiness FY19-FY21.

What statistics jump out at you?

According the the slide, compiklelded from the US Army Combat Readiness center (CRC):

Which Soldier demographic are at the highest risk?
What day and time do most accidents occur?

Looking at the Impacted Days portion in the lower left, what are your thoughts on the amount of lost time stemming from accidents/mishaps related to soldier fatigue?

What other observations can be made from the data?

Finally, looking at the total cost to the Army, approx $82M, from injuries and fatalities related to fatigue, what can the Army do better to improve this staggering and avoidable cost?

What can YOU do to help improve this situation?

Check on Learning:	Q. Which Soldier demographic are at the highest risk? A. Young, junior enlisted Soldiers on duty. Q. What day and time do most accidents occur? A. Tuesdays, early morning 0700-0759. Q. How many lost work days due to fatigue were reported? A. 1293 lost work days. Q. How many Soldiers were injured or became fatalities during this period? A. 242 Q. Finally, what can the Army do better protect Soldiers from injuries or fatalities stemming from fatigue?

A. Answers may vary

In this portion we discussed the staggering costs and impacts of fatigue on Army Readiness. This is a largely preventable issue and while Army Senior Leaders must realize and set proper conditions to avoid or mitigate these circumstances we all must take a role.

Review Summary:

What can Army Senior leaders do to improve the unacceptable impacts of fatigue on Soldiers and Army readiness?

What can you do to improve these statistics and ensure you and your squad do not become a statistic?

TLO - LSA 6. Learning Step / Activity TLO - LSA 6. Identify Sleep Readiness fundamentals

Method of Instruction:	Lecture
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	
Time of Instruction:	5 mins
Media Type:	Oral Presentation
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

Sleep is essential for optimal performance and readiness. The fundamentals of sleep readiness include: Sleep environment, making a pre-sleep routine, and using a sleep schedule that conforms as closely as possible to the brain's natural circadian rhythm of alertness.

1. SLEEP ENVIRONMENT

The area where you sleep is very important. An optimal sleep environment is cool, dark, and quiet. Studies show that the optimal sleep temperature in your sleep environment is about 67 degrees. Darken the room where you sleep, use blackout curtains and/or an eye mask. Remove any loud or annoying noise from where you sleep. Some individuals believe that they sleep better with music or a television on, that they can sleep anywhere, and that ambient noise does not bother them. Research shows that this is not the case. Soldiers do not get good sleep on a cot in the tactical operations center. Although sleepers are not aware of it, environmental sounds cause brief arousals—a momentary speeding of the brain's electro-encephalograph (known as EEG) activity during sleep—that effectively disrupt sleep continuity and reduce the restorative value of that sleep. Likewise, bright lights and excessively hot or cold environments can disrupt sleep continuity and reduce the restorative value of sleep.

2. PRE-SLEEP ROUTINE

Make a nightly routine of getting ready for sleep by winding down—such as listening to soothing music, reading, or taking a warm shower 30–60 minutes prior to bedtime tend to facilitate the transition to sleep. These routines will maximize sleep duration. Conversely, activities such as watching television, playing video games, using your cell phone, chatting online, and similar interesting or engaging activities tend to arouse the brain and delay sleep onset. These activities reduce the amount of sleep obtained and should be avoided during the pre-sleep wind-down period. Tobacco product use ican also be incompatible with sleep as the stimulant in nicotine tells the body to get active while it increases heart rate and alertness. Individuals experiencing significant stress often find relaxation techniques such as meditation and mindfulness exercises helpful.

3. SLEEP SCHEDULE

Plan to get 7-9 hours of sleep by sticking to a sleep schedule every day. You may need 10 hours in bed to get 7-9 hours of sleep. Your sleep efficiency may vary. Learm about your own level of sleep efficiency and plan ahead for it for optimum sleep. Adequate performance is best achieved by Soldiers who consistently get adequate sleep (7–9 hours) on a nighttime sleep-daytime wakefulness schedule aligned with the brain's natural circadian rhythm of alertness. Both sleep duration and sleep continuity are maximized on such schedules. However, military operations are often continuous (24-hours per day) and influenced by random and unpredictable events and requirements.

What are the three sleep readiness fundamentals?

Sleep environment, pre-sleep routine, and sleep schedule.

Identify and discuss the characteristics of each:

1. SLEEP ENVIRONMENT
The area where you sleep is very important. An optimal sleep environment is cool, dark, and quiet. Studies show that the optimal sleep temperature in your sleep environment is about 67 degrees. Darken the room where you sleep, use blackout curtains and/or an eye mask. Remove any loud or annoying noise from where you sleep. Some individuals believe that they sleep better with music or a television on, that they can sleep anywhere, and that ambient noise does not bother them. Research shows that this is not the case. Soldiers do not get good sleep on a cot in the tactical operations center. Although sleepers are not aware of it, environmental sounds cause brief arousals—a momentary speeding of the brain's electro-encephalograph (known as EEG) activity during sleep—that effectively disrupt sleep continuity and reduce the restorative value of that sleep. Likewise, bright lights and excessively hot or cold environments can disrupt sleep continuity and reduce the restorative value of sleep.

Check on Learning:

2. PRE-SLEEP ROUTINE
Make a nightly routine of getting ready for sleep by winding down—such as listening to soothing music, reading, or taking a warm shower 30–60 minutes prior to bedtime tend to facilitate the transition to sleep. These routines will maximize sleep duration. Conversely, activities such as watching television, playing video games, using your cell phone, chatting online, and similar interesting or engaging activities tend to arouse the brain and delay sleep onset. These activities reduce the amount of sleep obtained and should be avoided during the pre-sleep wind-down period. Tobacco product use ican also be incompatible with sleep as the stimulant in nicotine tells the body to get active while it increases heart rate and alertness. Individuals experiencing significant stress often find relaxation techniques such as meditation and mindfulness exercises helpful.

3. SLEEP SCHEDULE
Plan to get 7-9 hours of sleep by sticking to a sleep schedule every day. You may need 10 hours in bed to get 7-9 hours of sleep. Your sleep efficiency may vary. Learm about your own level of sleep efficiency and plan ahead for it for optimum sleep. Adequate performance is best achieved by Soldiers who consistently get adequate sleep (7–9 hours) on a nighttime sleep-daytime wakefulness schedule aligned with the brain's natural circadian rhythm of alertness. Both sleep duration and sleep continuity are maximized on such schedules. However, military operations are often continuous (24-hours per day) and influenced by random and unpredictable events and requirements.

In this section we covered the **three sleep readiness fundamentals: sleep environment, pre-sleep routine, and sleep schedule.**

Identify and discuss the characteristics of each and why they are important to sleep reeadiness?

1. SLEEP ENVIRONMENT
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Review Summary:

2. PRE-SLEEP ROUTINE
Make a nightly routine of getting ready for sleep by winding down—such as listening to soothing music, reading, or taking a warm shower 30–60 minutes prior to bedtime tend to facilitate the transition to sleep. These routines will maximize sleep duration. Conversely, activities such as watching television, playing video games, using your cell phone, chatting online, and similar interesting or engaging activities tend to arouse the brain and delay sleep onset. These activities reduce the amount of sleep obtained and should be avoided during the pre-sleep wind-down period. Tobacco product use ican also be incompatible with sleep as the stimulant in nicotine tells the body to get active while it increases heart rate and alertness. Individuals experiencing significant stress often find relaxation techniques such as meditation and mindfulness exercises helpful.

3. SLEEP SCHEDULE
Plan to get 7-9 hours of sleep by sticking to a sleep schedule every day. You may need 10 hours in bed to get 7-9 hours of sleep. Your sleep efficiency may vary. What is your sleep efficiency? Identify your own sleep efficiency and plan ahead or optimum sleep. Adequate performance is best achieved by Soldiers who consistently get adequate sleep (7–9 hours) on a nighttime sleep-daytime wakefulness schedule aligned with the brain's natural circadian rhythm of alertness.

These fundamentals are key to obtaining sleep readiness.

TLO - LSA 7. Learning Step / Activity TLO - LSA 7. Identify Circadium Rhythms and Sleep Cycles

Method of Instruction:	Discussion (Small or Large Group)
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	
Time of Instruction:	5 mins
Media Type:	Oral Presentation
Other Media:	Unassigned
Security Classification:	This course/lesson will present information that has a Security Classification of: U - Unclassified.

Identify Circadian Rhythm and Sleep Cycles

What are Circadian Rhythms?

1. Circadian rhythms are physical, mental, and behavioral changes that follow a 24-hour cycle. Literally translated, from the word circa, or "around" and dia- from "day or 24 hours".

2. Circadian rhythms respond primarily to light and dark and are important in determining the sleeping and feeding patterns of all animals, including human beings.

3. There are clear patterns of brain wave activity, hormone production, cell regeneration and other biological activities linked to this daily cycle.

Sleep Cycles:
1. Two basic types of sleep: Rapid eye movement (REM) sleep and non-REM sleep (which has three different stages).

Each is linked to specific brain waves and neural activity.

2. You cycle through all stages of non-REM and REM sleep several times during a typical night, with increasingly longer, deeper REM periods occurring toward morning.

-Stage 1 non-REM sleep is the changeover from wakefulness to sleep. During this short period (lasting several minutes) of relatively light sleep, your heartbeat, breathing, and eye movements slow, and your muscles relax with occasional twitches. Your brain waves begin to slow from their daytime wakefulness patterns.

-Stage 2 non-REM sleep is a period of light sleep before you enter deeper sleep. Your heartbeat and breathing slow, and muscles relax even further. Your body temperature drops and eye movements

stop. Brain wave activity slows but is marked by brief bursts of electrical activity. You spend more of your repeated sleep cycles in stage 2 sleep than in other sleep stages.

-Stage 3 non-REM sleep is the period of deep sleep that you need to feel refreshed in the morning. It occurs in longer periods during the first half of the night. Your heartbeat and breathing slow to their lowest levels during sleep. Your muscles are relaxed and it may be difficult to awaken you. Brain waves become even slower.
REM sleep first occurs about 90 minutes after falling asleep. Your eyes move rapidly from side to side behind closed eyelids. Mixed frequency brain wave activity becomes closer to that seen in wakefulness. Your breathing becomes faster and irregular, and your heart rate and blood pressure increase to near waking levels. Most of your dreaming occurs during REM sleep, although some can also occur in non-REM sleep. Your arm and leg muscles become temporarily paralyzed, which prevents you from acting out your dreams. As you age, you sleep less of your time in REM sleep. Memory consolidation most likely requires both non-REM and REM sleep.

Identify Circadian Rhythm and Sleep Cycles

Q. What are Circadian Rhythms?

A. Circadian rhythms are physical, mental, and behavioral changes that follow a 24-hour cycle that respond primarily to light and dark and are important in determining the sleeping and feeding patterns of all animals, including human beings.

Sleep Cycles:
1. Two basic types of sleep: Rapid eye movement (REM) sleep and non-REM sleep (which has three different stages).

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Check on Learning:

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In this section we discussed Circadian Rhythm and Sleep Cycles.

Recall that **C**ircadian rhythms are physical, mental, and behavioral changes that follow a 24-hour cycle that respond primarily to light and dark and are important in determining the sleeping and feeding patterns of all animals, including human beings.

Review Summary:

Sleep Cycles can be classifeed into two basic types of sleep: Rapid eye movement (REM) sleep and non-REM sleep (which has three different stages) and each is linked to specific brain waves and neural activity.
2. You cycle through all stages of non-REM and REM sleep several times during a typical night, with increasingly longer, deeper REM periods occurring toward morning.

SECTION IV. SUMMARY

Method of Instruction:	Discussion (Small or Large Group)
Mode of Delivery:	Resident Instruction
Instr Type (I:S Ratio):	Military - NON-ICH (1:25) (Drill Sergeant)
Time of Instruction:	5 mins

Check on Learning

Q. What is Sleep Readiness?
A. Sleep readiness is the ability to recognize and implement the requisite sleep principles, sleep hygiene and sleep behaviors to optimize your physical and mental function.

Q. What is sleep banking?

A. Sleep banking is when a Soldier significantly increases their sleep duration for multiple consecutive nights prior to a mission or duty that is likely to resuly in the Soldier not getting adequate sleep. The extra sleep they obtain creates a bank of sleep they use to sustain alertness and performance during subsequent sleep loss. FM 7-22 Para 11-42

Q. What are the effects of inadequate sleep?
A. Reduced ability to concentrate, impaired judgment, problem solving and decision making.
Increased irritability and reduced mood.

Reduced motivation level.
Increased reaction time and slowed response time.
Reduced ability to effectively cope with stress.
Increased risk of physical injury.

Increased time to recover from injury.

Q. Why is sleep so important? What are some of the ways sleep is important?
A. Sleep is important because it sustains brain and physical health, cognition, the immune system, and recovery after physical and mental activity.

Sleep is the body's way to rest, repair, and recover.

Sleep is crucial for tissue repair and hormone synthesis to maintain peak performance, both physically and mentally, and it is the critical requirement for brain health and function.

Review/Summary

Check On Learning:

Q. What is Sleep Readiness?
A. Sleep readiness is the ability to recognize and implement the requisite sleep principles and behaviors to support optimal brain function.

Q. What are the three Sleep Principles?
A. Sleep Duration, Sleep Timing, and Sleep Continuity

Q. How do you promote healthy sleep?
A. You can promote healthy sleep by improving your sleep environment, making a solid pre-sleep routine, and using a sleep schedule.

SUMMARY:

During this lesson we have discussed the sleep principles, identified the sleep banking method, and ways to promote healthy sleep.

However, we only hit the wave tops.

The importance of Sleep Readiness cannot be emphasized enough.

Sleep readiness is crucial to your health and fitness whether you are a Private or General Officer.

There is much more on sleep readiness in chapter 11 of the FM 7-22 Holistic Health and Fitness manual. Soldiers should sleep as much as they can, whenever they can, as the situation allows.

The vast majority of Soldiers require 7-9 hours of sleep per night to sustain performance; more sleep is better.

Soldiers can maximize sleep and subsequent performance by timing sleep and caffeine use optimally.

Finally, Take inventory of how you feel after sleeping and your own state of sleep readiness, are you ready?

SECTION V. STUDENT EVALUATION

Testing Requirements	NOTE: Describe how the student must demonstrate the accomplishment of the TLO. Refer student to the Individual Student Assessment Plan.
Feedback Requirements	NOTE: Feedback is essential to effective learning. Schedule and provide feedback on the evaluation and any information to help answer students# questions about the test. Provide remedial training as needed.

Appendix A - Viewgraph Masters

Introduction to The Holistic Health and Fitness System (H2F) Sleep Readiness
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Sequence	Media Name	Media Type
None		

Appendix B - Assessment Statement and Assessment Plan

Assessment Statement: None.

Assessment Plan: None.

PRACTICE EXERCISE(S)/SOLUTIONS(S) FOR LESSON 805P-BT805005 Version 1.3 ©

Appendix D - Student Handouts

Introduction to The Holistic Health and Fitness System (H2F) Sleep Readiness
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Sequence	Media Name	Media Type
None		