



**UNIVERSIDADE FEDERAL DE SÃO CARLOS
PRÓ-REITORIA DE PÓS-GRADUAÇÃO**

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FICHA DE CARACTERIZAÇÃO DE DISCIPLINAS

1. Programa de Pós-Graduação em:

Programa de Pós-Graduação em Fisioterapia

2. Objetivo da Ficha: Criação de disciplina.

Código da Disciplina	FIT-599	Total de Créditos	1	Início de Validade	2o. período de 2024
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Nome da Disciplina	Physical Activity Assessment And Promotion Using Emerging Technologies
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Campos a serem Alterados

<input type="checkbox"/> Código da Disciplina	<input type="checkbox"/> Nome da Disciplina	<input type="checkbox"/> Carga Horária	<input type="checkbox"/> Ementa
<input type="checkbox"/> Código Anterior:	<input type="checkbox"/> Créditos	<input type="checkbox"/> Pré-Requisitos	

Justificativa:

Provide students with knowledge and skills in physical activity assessment and promotion using emerging technologies

3. Carga Horária da Disciplina:

Aulas Teóricas	9	Aulas Práticas	6	Exercícios e Seminários	0
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4. Ementa da Disciplina:

- Theoretical (4h): Physical activity: definition, impact and recommendations**
Definition and basic principles of physical activity, health-related physical fitness and sedentary behavior;
Impact of physical (in)activity in patients with chronic diseases;
International recommendations for physical activity;
Factors that can influence patients physical activity behaviors;
Core components and examples of effective interventions of physical activity promotion using technologies
- Theoretical-practical (5h): Daily physical activity assessment using technologies**
Use of technology for activity monitoring: challenges and opportunities
Type of technologies for physical activity e.g., pedometers, accelerometers, wearables, smartphone apps
Experiences of using wearables and mobile technologies for activity monitoring (practical activity)
Importance of valid and reliable measures to assess physical activity
- Practical exercise with supervision (6h): Individualized plans for promoting physical activity in disease populations using technologies**
This practical exercise will include the definition of:
Specific measures for physical activity assessment;
Components of physical activity promotion;
Strategies for monitoring daily physical activity intensity;
Precautions, challenges and opportunities of these interventions

5. Caráter da Disciplina:

Criada para o curso de:

Mestrado

Doutorado

Mestrado Profissional

Todos

Caráter para mestrado:

Obrigatória para:

Optativa para: Fisioterapia e Desempenho Funcional.

Alternativa para:

Área de Concentração para:

Específica de Linha para:

Caráter para doutorado:

Obrigatória para:

Optativa para: Fisioterapia e Desempenho Funcional.

Alternativa para:

Área de Concentração para:

Específica de Linha para:

Caráter para mestrado profissional:

Obrigatória para:

Optativa para:

Alternativa para:

Área de Concentração para:

Específica de Linha para:

6. Disciplinas que São Pré-Requisitos:

7. Bibliografia Principal:

- 1 Bull, F.C., S.S. Al-Ansari, S. Biddle et al., World Health Organization 2020 guidelines on physical activity and sedentary behaviour. *British Journal of Sports Medicine* 2020; 54(24): 1451.
- 2 Ding, D., K.D. Lawson, T.L. Kolbe-Alexander et al., The economic burden of physical inactivity: a global analysis of major non-communicable diseases. *The Lancet* 2016; 388(10051): 1311-1324.
- 3 Gao, Z. and J.E. Lee, Emerging Technology in Promoting Physical Activity and Health: Challenges and Opportunities. *Journal of Clinical Medicine* 2019; 8(11).
- 4 Ahad, M.A., S. Paiva, G. Tripathi et al., Enabling technologies and sustainable smart cities. *Sustainable Cities and Society* 2020; 61: 102301.
- 5 Solanas, A., C. Patsakis, M. Conti et al., Smart health: A context-aware health paradigm within smart cities. *IEEE Communications Magazine* 2014; 52(8): 74-81.
- 6 Yu, S., Z. Chen, and X. Wu, The Impact of Wearable Devices on Physical Activity for Chronic Disease Patients: Findings from the 2019 Health Information National Trends Survey. *International Journal of Environmental Research and Public Health* 2023; 20(1): 887.
- 7 Silva, J., N. Hipólito, P. Machado et al., Technological features of smartphone apps for physical activity promotion in patients with COPD: A systematic review. *Pulmonology* 2023. Online ahead of print. Doi: 10.1016/j.pulmoe.2023.06.005
- 8 Flora, S., N. Hipólito, D. Brooks et al., Phenotyping Adopters of Mobile Applications Among Patients With COPD: A Cross-Sectional Study. *Frontiers in Rehabilitation Sciences* 2021; 2(72).
- 9 Flora, S., L.A. Santos, N. Hipólito et al., Needs and expectations of smartphone apps features for enhancing physical activity in patients with COPD. *European Respiratory Journal* 2019; 54(suppl 63): PA1244.
- 10 Jácome, C., F. Marques, C. Paixao et al., Embracing digital technology in chronic respiratory care: Surveying patients access and confidence. *Pulmonology* 2020; 26(1): 56-59.

8. Principais Docentes Responsáveis:

Renata Gonçalves Mendes

9. Aprovação da Coordenação do Programa de Pós-Graduação: