UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

COS 790: Hyper-Heuristics and Combinatorial Optimization
Assignment 1: Selection Perturbative Hyper-Heuristic
Due Date: 29 August 2023

This assignment involves implementation of a *selection perturbative* hyper-heuristic for the curriculum based course timetabling problem. The curriculum based course timetabling problem is described in the attached paper (Pillay2016.pdf). The data instances for the curriculum based course timetabling problem can be accessed from `https://drive.google.com/drive/folders/16wgeqWnBwcCp-TTtd8e5Af5Us9nb-c8e?usp=drive_link`. The proposed hyper-heuristic should be evaluated on at least *5* of these problem instances.

Assignments must be submitted via clickUP. The source code, compiled code and report must be submitted.

The report must include:

- Description of the approach that will be used for the hyper-heuristic.

- A description of the experimental setup, i.e. parameter values used for the hyper-heuristic, problem instances used, technical specifications of the machine used to develop the program and run simulations.

- The results (averages and best values over the runs performed). A minimum of 10 runs should be performed.

- A discussion of the results.

Total: 30