

OBJECTIVE 2 – QUALIFICATION BENCHMARKING

PhD Computer Science

Hanoi University of Science and Technology (HUST)

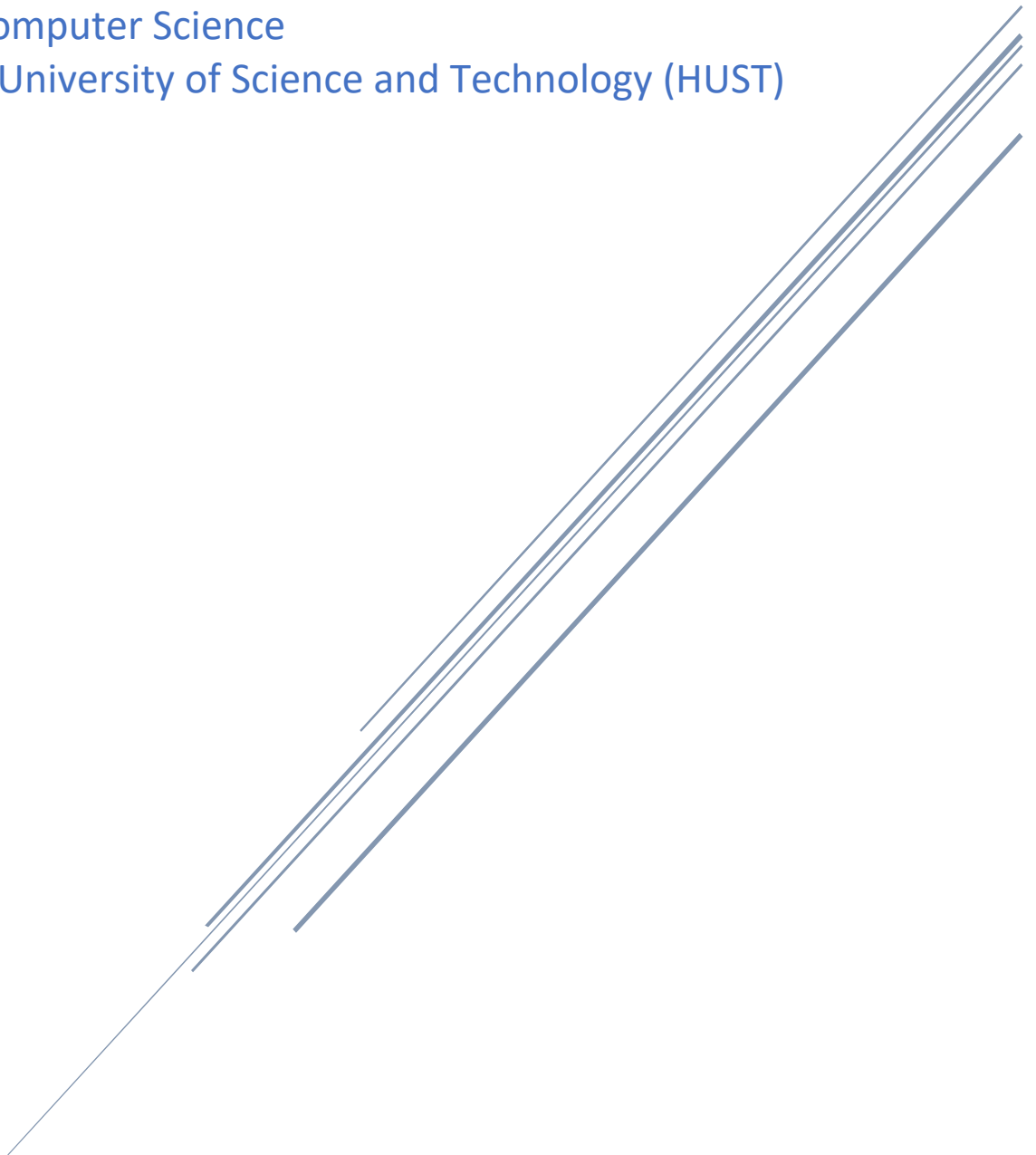


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Introduction

The PhD Computer Science programme at Hanoi University of Science and Technology (HUST) aims to develop professionals with advanced practical knowledge and theory of computer science. The main objective is to develop problem solving, critical thinking and management skills, so that the degree holder becomes a knowledge contributor and/or expert in different areas of computer science. Prospective students for the PhD programme are expected to have master's or very good bachelor's degree in computer science or engineering.

Design of the programme

1. This 106 credit research degree programme is primarily focused on the doctoral dissertation, which constitutes 90 credits. The remaining 16 credits are divided into 2 x 8 credit groups delivered during the first year of this 3-4 year programme.
2. The first group consists of the major core programme with 8 credits, where students take taught courses (masters level) according to their research areas – advanced algorithms, software engineering, information systems and Intelligent data analysis. Upon completion of these taught courses, students undertake 8 credits of major specialisation courses that enable students to specialise in their research areas. Courses for major specialisation consist of literature review and area specific study.

Mode of delivery

3. All master's level taught courses are delivered in English and have theory, practice and self-study credit hours. The self-study hours vary with students and are usually 2 hours/credit/week.
4. The research students must publish papers (journal/conference) as part of their PhD programme.

Learning and Teaching

5. The specialisation of the dissertation project is selected very early on and the academic committee decide the courses the student needs to take.

Assessment and feedback

6. No information on how the research problem is formalised.
7. No information on how the progression of research is assessed during and at the end of the PhD dissertation.

Conclusion and Recommendations

8. Research methodology and literature review approaches can be incorporated within the taught course syllabus.
9. Deciding on specialised courses by the academic committee can be made flexible with student inclusion and the flexibility to change with progression of research problem formalisation process.
10. Periodic review of research progression needs to be placed at micro (weekly lab meeting reporting) and macro level (quarterly school level peer assessment).

11. Incorporation of courses on scientific writing skill development (including use of tools like Overleaf, LaTeX) along with presentation skills can be incorporated.
12. Short courses on code sharing, version control and knowledge about IP can be introduced within the programme.
13. Students can be exposed to teaching (as teaching assistant) to get acquainted with teaching and scholarship activities.