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- Goals
  - understand how WCET analysis works?
  - and/or be able to use WCET analysis?
    - *The problem is more fundamental than that. The problem is to make students understand the issues that affect execution time behaviour, only then you can address the problem of WCET calculation*
- Place in curriculum:
  - in which study year?
    - *last year of degree*
  - in an obligatory course or an elective course?
    - *elective course.*
  - o in a course on which subject?
    - *a module on "Real-Time Systems".*
- Scope and duration:
  - o hours of lectures
    - *1 to 2 hour lectures out of a module of 18 hours.*
  - o hours of lab work
    - *no lab-work this year.*

Teaching of WCET analysis at York 2/3

- Assumed preliminary knowledge:
  - static program analysis?
    - *No*
  - assembly language?
    - *Yes*
  - processor architecture?
    - *Yes*
  - scheduling theory?
    - *Yes, explained as part of the Real-Time Systems module.*
  - real-time SW architecture and prog. Languages?
    - *Yes, they are prerequisists*
- Teaching tools and environments:
  - specific target processor? eg. ARM, PPC
    - *no, only generic issues explained*
  - o specific WCET tool? eg. aiT, RapiTime
    - *yes, overview of techniques and tools. RapiTime architecture.*
  - specific example programs/exercises?
    - *motivational examples. Detailed examples left for self study.*

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- Feed-back from graduated students or their employers:
  - anyone using WCET analysis professionally?
    - *No*
  - evaluation: teaching useful or not?
    - *yes, as a realisation of the complexity of the issues involved in timing analysis*
- Overall comment:
  - *The issue is not WCET analysis, but general understanding of how to build analysable systems and what are the issues that affect timing. In particular, moving away from an "average case execution time" way of thinking to a more wcet analysable*