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MICROWAVE ELECTRONICS

Course website: <http://www.ece.mcgill.ca/~info573/>

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Recommended References:

- [1] Physics of Semiconductor Devices, S.M. Sze, chapters 9, 10, 11
- [2] Foundations for Microstrip Circuit Design, T. Edwards, 2nd edition, chapters 4, 5, 6, 7, 8, 9
- [3] Microwave Devices and Circuits, 2nd edition, S.Y. Liao, Prentice-Hall

Course Content:

- [1] Introduction to the principles of microwave electronic devices.
- [2] Two terminal microwave devices: tunnel diodes, IMPATT devices and transferred electron devices.
- [3] Three terminal microwave devices: MESFETs, HEMTs, HBTs.
- [4] Microwave amplifiers.
- [5] Introduction to Microwave Integrated Circuits.
- [6] Introduction to Agilent Advanced Design System for microwave circuits.
 - [6-1] Key features of Agilent ADS
 - [6-2] Main functional blocks of Agilent ADS
 - [6-3] Main steps and approaches in the design and optimization of microwave devices and circuits using Agilent ADS
 - [6-4] Brief survey on the commercial software for microwave

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