

## Living in a Computing World

CS190B • CRN 56520

4 Credit Hours

Mondays & Wednesdays

1:00PM - 2:50PM



Offered Fall 2010 by

Department of Mathematical and Computer Sciences

Metropolitan State College of Denver



For more information contact

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[www.LivingInAComputingWorld.org](http://www.LivingInAComputingWorld.org)

NEW COURSE — MSCD — FALL 2010

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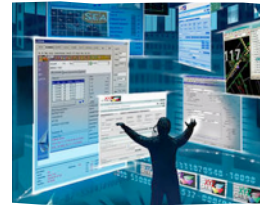
**Living in a Computing World** enables students to better cope with and prosper in a world where computing is everywhere. It provides the knowledge and skills necessary now and in the future as we become ever more dependent upon computers and technology. Computing is an inescapable and integral part of the fabric of society, spreading throughout all aspects of modern life. Thus we need to be aware of the practical implications of new and future systems and devices and what we must know in order to exploit them as well as to protect ourselves and others.

**Living in a Computing World** empowers students with fundamental skills that will be “used by everyone in the world by the middle of the 21st Century, just like reading, writing, and arithmetic.”<sup>1</sup> These apply to all disciplines (arts, humanities, business, social and physical sciences, ...) and to all aspects of 21st Century life (health, entertainment, employment, family, law, ...)

**Living in a Computing World** addresses how computing enables and empowers innovation, exploration, and the creation of knowledge as well as how it transforms human values and can facilitate social abuses and violations of human rights. Examples of fundamental changes in our thinking that the course will explore include: devices that compensate for defects in and enhance the performance of human memory and thinking; distinguishing truth and fraud on the Internet; cyber-bullying; augmented realities; the potential for a person to ‘live forever’; challenges to privacy; artificial intelligences that demand ‘human’ rights; maintaining control of your ‘digital life’; ...



**Living in a Computing World** provides techniques and skills for working in and reasoning about the modern world, but it is NOT a “*Computer Literacy*” course and it is NOT a “*Computer Programming*” course.\* Students will learn how to evaluate problems and opportunities as well as the feasibility and social impact of proposed solutions and products. Students will design and build personally-relevant creations both individually and in teams using a variety of computational tools (*abstraction, algorithms, data, modeling, simulation*) and iterative creative processes (*like those used by artists, musicians and engineers*) to translate their ideas into tangible form that they can share with others.



**Living in a Computing World** is part of a major effort launched by the National Science Foundation to establish a new “gold standard” course to address the needs of 21<sup>st</sup> Century society and students who are unlikely to enroll in computer science courses. MSCD is one of five sites<sup>†</sup> chosen to develop and pilot the course in Fall 2010, leading toward the target goal of eventual implementation in over 10,000 schools in the USA.



\* MSCD offers Computer Literacy and Computer Programming courses (e.g., CSS1010, CS1050).

† The five initial pilot sites include UC Berkeley, UNC Charlotte, Metropolitan State College of Denver, UC San Diego, and University of Washington.