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### BMKT 460.01: Marketing of High-Technology Products and Innovations

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**MKTG 460**  
**Marketing of High-Technology Products and Innovations**

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**Professor Mohr**  
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**Office: Room 324**  
**email: [jakki.mohr@business.umt.edu](mailto:jakki.mohr@business.umt.edu)**

**Classroom: GBB 122**  
**Time: 9:40-11:00**  
**Monday/Wednesday**  
**<http://www.business.umt.edu/faculty/mohr>**

**Office Hours:** Tuesday/Wednesday, 1:30-3:30, or by appointment

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**Prerequisite for this course:** Principles of Marketing or equivalent. Because we will be discussing how basic marketing concepts and practices are adapted for and used in a high-tech environment, basic knowledge of these marketing concepts is required. Please see me if you would like to borrow a basic book to review basic concepts.

**Required Textbook:** Mohr, Jakki, Sanjit Sengupta, Stanley Slater (2010), *Marketing High-Technology Products and Innovations*, 3<sup>rd</sup> Edition, Upper Saddle River, NJ: Prentice-Hall.  
Accompanying Web site: [www.markethightech.net](http://www.markethightech.net)

**Required Powerpoint Notes:** On Dropbox  
**Required Readings:** On Moodle  
**Required Podcasts:** On YouTube

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**Course Objectives:** This class will explore concepts and practices related to marketing of technology-driven products & innovations. The unique, fast-paced environment of high-tech means that standard marketing strategies must be modified. Specific topics include:

- the defining characteristics of high-technology industries
- different types and patterns of innovation, and their marketing implications
- technology transfer and spin-outs
- the need for (and difficulties in) adopting a customer-orientation in technology businesses
- tools used to gather marketing research/intelligence in technology-driven industries
- use of strategic alliances and partnerships in marketing technology
- how to 'cross the chasm' between early adopters and mainstream customers
- adaptations to the marketing mix (the "4 P's") required in a high-tech environment
- use of online marketing and social media marketing to complement traditional advertising
- branding strategies used by technology companies, including ingredient branding
- regulatory and ethical considerations in technological arenas.

The class will explore a range and diversity of industries and contexts. Focus will be placed on business-to-business high-tech contexts. Issues for both small and big business will be addressed. The course will provide a balance between conceptual discussions and applied/hands-on analysis. The domain will include both technological (R&D intensive) innovations (roughly 1/3 of class focus), digital business models (1/3), and the use of technology for marketing purposes including online and social media marketing, mobile marketing, etc. (1/3%). Clearly, these domains are inter-related!

Learning Outcomes: After taking this course you will be able to:

1. Analyze and dissect dynamics of high-technology industries to articulate critical success factors
2. Develop and evaluate marketing strategies for high-technology companies
3. Identify and gather the necessary information to develop solid marketing strategies for technology companies

4. Leverage Web 1.0, Web 2.0, and Web 3.0 for marketing purposes
  5. Convey an understanding of critical emerging technologies.
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**Educational Philosophy:** A classroom environment that stimulates active learning will enhance understanding, retention, and future utilization of the material. So, this course utilizes discussions, presentations, and reports, designed to facilitate the "doing" component of learning. I see my role as the facilitator of student learning. It is the student's job to come to class prepared to learn, to actively participate, to be involved, to be intellectually curious, to act with integrity and reliability, and to work collaboratively with their classmates.

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**Email** -- According to University policy, faculty may communicate with students regarding academic issues only via official UM email accounts. Accordingly, students must use their UM accounts. Email from non-UM accounts will likely be flagged as spam and deleted without further response. To avoid violating the Family Educational Rights and Privacy Act, I cannot discuss confidential information (including grades and course performance) via phone or email.

**Handling e-mail communication:** Feedback from recruiters and others (including an article in the *Wall Street Journal*) indicates that students need more practice in writing professional e-mail messages. As a result, I expect all of your email correspondence with me to be professionally appropriate including a proper salutation, grammar, spelling, punctuation, capitalization, and signature with professional tone and content.

I respond to all email messages I receive *during the work week*. If you need a response to an issue faster than I can get to it on email, please feel free to reach me at my office: 243-2920 or stop by.

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**Academic Misconduct** -- Integrity and honesty are basic expectations for behavior. It is your duty to act honestly and ethically in your coursework, and it is my duty to ensure a fair classroom environment for all students. *Cheating of any sort will not be tolerated.* Cheating, failure to follow instructions, and/or failure to follow course policies may result in a reduced grade or a failing grade.

The following message about academic integrity comes from the Provost's office: "*All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University.* It is the student's responsibility to be familiar the Student Conduct Code (found online at [http://www.umt.edu/vpsa/policies/student\\_conduct.php](http://www.umt.edu/vpsa/policies/student_conduct.php)).

Students are expected to:

- Be knowledgeable of activities that are considered academic misconduct, as defined in the UM Student Conduct Code,
- Practice academic honesty on all exams, quizzes, homework, in-class assignments, and all other activities that are part of the academic component of a course,
- Encourage other students to do the same.

If you are unsure if a behavior will be viewed as academic misconduct, please ask. *A good rule of thumb is that any credit-earning activity in a course should represent the true skills and ability of the individual person receiving the credit.* A partial list of situations that are considered academic misconduct is in the SoBA Professional Code of Conduct (found online at

<http://www.business.umt.edu/Soba/SoBAEthics/CodeofProfessionalConduct.aspx>). If at any point a student is unsure if working with another student is permissible, that student should contact the instructor before doing so.

Please note that it is a form of academic misconduct to submit work that was previously used in another course. I also have a history of treating any plagiarism (from the Internet or any other source) quite severely. Always cite your sources appropriately. It actually makes your work more credible.

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**Disability Services for Students** -- Students with disabilities will receive reasonable modifications in this course. The student's responsibilities are to request the modification from me with sufficient advance notice and to be prepared to provide official verification of disability and its impact from Disability Services for Students. To respect your privacy, please speak with me during my office hours about your needs.

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**Course Requirements:** (Each is explained below in detail)

3 Exams 15% each	45%
Class Contribution/ Participation	
And in-class assignments/work	15%
Professional Development (n=2)	10%
Speaker Due Diligence (n=3)	15%
Book Club	<u>15%</u>
<b>Total:</b>	100%

**Exams:** The exams will be short-answer and problem-solving questions, testing factual knowledge about the readings and material covered during the semester. Additionally, some questions require integration, synthesis, and critical interpretation.

\* \* **No late exams or make-ups will be given.** \* \*

**Class Contribution:** In order to stimulate active learning, class contribution will be graded. Obviously, class quality is a function of the quality of each student's preparation.

Please note: You are not ready to participate if you are not PREPARED on a daily basis. The general rule of thumb for an upper division elective is 3 hours outside of class per hour inside of class. Please come to class conscientiously prepared (by doing the assigned readings carefully and thoughtfully)

*My evaluation stresses the thoughtful, meaningful contributions to class discussions and not the quantity of participation per se. Quality participation is based on demonstration of learning/knowledge of class concepts and readings (through description, applications, examples, questions) and critical assessment of those concepts. Finally, your contribution to the spirit of the class (contributes to a positive learning environment) is also important.*

Please ask me for feedback concerning your participation at any point during the semester. You will turn in a self-evaluation (see form in syllabus) on **March 23**.

**Out-of-Class Assignments:** On occasion, I may ask you to do other work (prepare for class debates, apply the concepts we are learning to actual company situations, etc.) in order to ensure you are learning the material. I may also ask you to present examples to your classmates. Be ready to think extemporaneously, and please, always be prepared.

**Networking:** Students will be expected to participate in two outside networking events this semester.

**Book Club:** See last page

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**Extra Credit: 10 points.** You may attend one outside guest lecture (may not double dip with another class) that is relevant to the domain. Please get prior approval from me. Submit a write-up within one week about the speaker (who, title, where, when) as well as three bulleted points about what you found particularly interesting/meaningful/relevant about the talk. Your LOGIC about why those bulleted points are interesting/meaningful/relevant is the basis for my grade.

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**Semester Grading:** Your final letter grade in the class is based upon the distribution of total points at the end of the semester. Plus/Minus grading will be used for final grades on the following scale.

93 - 100% A / 90 - 92% A-

A = Demonstrates thorough, sophisticated understanding of the subject, displays mastery of high-tech marketing strategies; answers supported with compelling logic, critical insights, and careful attention to detail; communicated with professional/excellent oral and written communication skills.

87 - 89% B+ / 83 - 86% B/ 80-82% B-

B = Good understanding of the material (possible occasional oversight of key facts/ issues) and/or minor issues with clear/concise written/ oral communication; lacks supporting detail/sophisticated insights.

77-79% C+ / 73-76% C/ 70-72% C-

C = Basic/rudimentary comprehension of terms (possibly some inaccuracies); unclear communication skills that need significant attention/improvement.

67-69% D+ / 63-66% D/ 60-62% D-

D = Lack of knowledge/proficiency with class concepts and/or inability to communicate your degree of learning about class material.

Below 60% F = Dereliction of class responsibilities.

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### **School of Business Administration Mission Statement and Assurance of Learning**

The University of Montana's School of Business Administration enhances lives and benefits society by providing a world-class business education in a supportive, collegial environment. We accomplish this mission by acting on our shared core values of creating significant experiences, building relationships, teaching and researching relevant topics, behaving ethically, and inspiring individuals to thrive.

As part of our assessment process, the School of Business Administration has adopted the following learning goals and objectives for our undergraduate students:

**Learning Goal 1:** SoBA graduates will possess fundamental business knowledge.

**Learning Goal 2:** SoBA graduates will be able to integrate business knowledge.

**Learning Goal 3:** SoBA graduates will be effective communicators.

**Learning Goal 4:** SoBA graduates will possess problem solving skills.

**Learning Goal 5:** SoBA graduates will have an ethical awareness.

**Learning Goal 6:** SoBA graduates will be proficient users of technology.

**Learning Goal 7:** SoBA graduates will understand the global business environment in which they operate.

<i>Date</i>	<i>Topic/Article</i>	<i>Chapter</i>
Week 1: Mon 1.25/ Wed 1.27	Introduction: Why “High-Tech Marketing?” What is “high-tech?” On Youtube Ch. 1a: Review of marketing; common characteristics of high-tech environments Ch. 1b: Unit one effects, etc.; network effects and standards; types of innovations (incremental/breakthrough), and contingency theory of high-tech marketing	1
Week 2: Feb 1/Feb 3	Innovation Ecosystems: Who is the customer? (some parts of Ch. 5) Virtual Reality Reading	5
Saturday, February 6	Extra Outside Lecture: Judy Mohr, Intellectual Property/Patents Time: TBD	GBB L14
Week 3: Feb 8/10	Core Competencies; Strategy in High-Tech Firms; Sweet Spot; Value propositions (and accompanying YouTube Videos)	2
Week 4: Feb. 17:	Feb. 15. Monday: President’s Day/ Holiday Culture of Innovativeness in High-Tech Firms Disruption; Creative destruction; skunkworks; “lean start-up/ expeditionary” bi-focal vision; champions; etc. Internet of Things/Sensors	3
Feb. 19	First book club meeting must be completed; leader of this session must have emailed me the discussion guide.	
Week 5: Feb. 22/24	Intel/ingredient branding film Tech Transfer, incubators, and entrepreneurial ecosystems R2C here/Julia Chan	12
Feb. 23, Tuesday, 5:30-7:00	M&M Networking Reception - Must sign up (May NOT double dip with other classes that require this) Can attend only ONE of SoBA’s networking receptions as a networking event	
Week 6: Feb. 29 and March 2	MonTec Incubator Tour OR POSSIBLE Worldwide speaker Beacon reading OR Deep Learning/Cognitive Computing/Watson Review for Exam; get exam prompt	
Week 7: March 7/9	<b>Exam I due at start of class, 9:40, March 7.</b> <b>Geoff Pepos, Virtual Reality Demo</b> Amanda Read, Read Mobile Marketing	
March 11	Second book club meeting must be completed; leader of this session must have emailed me the discussion guide.	

Week 8: March 14/16	Understanding high-tech customers: crossing the chasm *MUST* listen to all Ch. 7 podcasts prior to March 14! DRONE Nation	7
Week 9: March 21/23	Product Development and Management in High-Tech Firms Elixiter?? Nanotechnology OR Biomimicry (Ch. 6) Self-Evaluation of Participation due Last date for first networking event write-up	8
Tuesday, March 22, 5:30-7:00	MIS Networking Event - Must sign up Can attend only ONE of SoBA's networking receptions as a networking event (May NOT double dip with other classes that require this)	
Week 10: March 28/30	Michael Fitzgerald, Submittable Dawn McGee, Goodworks Ventures, Financing and Valuation of high-tech start-ups	
Week 11: April 4/6	<b>Happy Spring Break</b>	
Week 12: April 11/13	Patrick Marzullo, Wieden + Kennedy Gamification Review for Exam 2	
Week 13: April 18/20	<b>Exam 2 due at start of class, Monday, April 18</b> Pricing and online business models	10
April 22	Third book club meeting must be completed; leader of this session must have emailed me the discussion guide.	
Week 14: April 25/27	Advertising Branding	11 12
Week 15: May 2/4	Book Club Write-Up Due (individual assignment) Business Model Canvas Course Wrap-up; receive final exam prompts	
Fri., May 6	M&M/BAC Board meetings	
May 11, Wednesday	Final exam due, 10:00 a.m.	

On your own:

Market Orientation and Marketing/R&D Interaction	4
Partnerships and Alliances in High-Tech Markets	5
High-Tech Research Tools	6
Distribution Channels in High-Tech Markets	9
Digital Divide, Environmental Strategies, BOP	13

## Self-Evaluation of Class Participation

(Due Wednesday, March 23)

Name:

Class Participation is a function of:

- Voicing your ideas: do you attempt to *articulate your ideas* about the assigned reading and class concepts (description of class concepts; elaboration on assigned readings)?
- Sharing examples: do you bring up *current technology events* in the news, and/or *relevant examples* that are related to class tied to class concepts?
- Asking questions: Do you offer personal insights that build on relevant concepts?
- For “active” students: Do you give your classmates a chance to talk? Do you prioritize your contributions? How?
- For “quiet/shy” types: Are the contributions you would like to make written down in advance of class? (Examples, questions, most interesting..., etc.)

Please assign yourself a participation grade (0-100%)

My Score: \_\_\_\_\_

What are you doing that you think is very good with respect to your participation record?

What are you doing that you think is not as good as you wish it were with respect to your participation record? What steps will you take to improve it?

PS I will include in my evaluation of your participation *class respect*: do you respect the class environment (supportive of others’ comments, respectful when they are talking; respectful of need to share “air time,” maintain continuity of discussion, not buried in your laptop, etc.)?



**“Big Picture” Assignment: Summary and Wrap-Up**

**Name:**

Due Date: Monday, May 2 (or perhaps with your Exam, May 11)

We’ve covered a lot of ground this semester. Think back over the various topics we’ve covered and concepts you’ve learned.

Identify the three concepts you learned which are the most important to marketing of high-tech products. Elaborate.

Which speakers were most useful? Why?

Create a one-page schematic to organize the topics/concepts we covered this semester, to better identify their inter-relationships and effects on each other (turn one in to me).

## **Out of Class Assignments: Networking and Professional Development**

Two networking events are required, at least one PRIOR to March 23.

You may NOT double dip with other classes/requirements

Please “buddy up” with a friend or two and attend two networking events.

After the event, please write a brief summary of your experience:

- Title: what/where/when
- how you prepared;
- how you felt;
- who you met;
- what you talked about,
- how you will follow up, etc.

- Hellgate Venture Network: Usually the 3rd Thursday of each month; locations vary; 4:30-6:30. See their LinkedIn Page for details.
- Women of the Web: Nonprofit community group of women (and men) gaga for web development and design. All meetings held at the Loft of Missoula. New members welcome. For more information go to [Women for the Web](#).

March 9, 2016, [Social Media Happy Hour](#), 6:00 p.m.

April 13, 2016, [Me, Myself, and I: Self Publishing Basics](#), 6:00 p.m.

- [WWW.GSD](#) (Western Women Who Get Shit Done): Generally the 2<sup>nd</sup> Thursday every other month. Please find the Facebook page and ask to be invited to join.
- Montana High-Tech Business Alliance: Check their Website for events.
- Missoula Economic Partnership/Innovation Initiative: Check their Website for events. <http://www.missoulapartnership.com/grow-your-business/innovation-initiative/>
- Kauffmann Foundation Million cups (Wednesday morning)
- Blackstone LaunchPad Events: must be a \*business-related\* event for networking
- MamaLode’s Learn As You Go Series: On Facebook (LAYG)

**Select THREE speakers.**

**Pre-speaker “due diligence” assignments** (on the technology, competition, customers, marketing issues—about 1 pages) are due **one week prior to that speaker**). Electronic submission (Word document via email) is preferred. These will be shared with your classmates and with the speaker.

Expected deliverables include a summary of:

- the technology or topic
- the company’s customers and competitors and their respective perspectives/issues
- three thoughtful questions for the speaker that reflect this advance preparation. (Three “generic” questions that you could ask anyone are not sufficient.) If time permits, please ask these questions during or after class.

In lieu of ONE of these, you may sign up to be a “host” of a speaker, which includes writing the thank you note and managing social media and publicity on the event, first come first serve).

Feb. 29: Joe Fanguy, Director of Technology Transfer at UM and MonTEC (UM’s incubator) or POSSIBLE Worldwide

March 7: Geoff Pepos, Virtual Reality Software

March 9: Amanda Read, CEO/Owner of Read Mobile Marketing (“Helping Business Communicate the Way Their Customers Do”) [www.readmobilemarketing.com](http://www.readmobilemarketing.com)

March 23: Elixiter? Or Deep Learning/Cognitive Computing IBM

March 28: Michael Fitzgerald, CEO Submittable

March 30: Dawn McGee, Goodworks Ventures, the world of venture capital (Or Will Price)

April 11: Patrick Marzullo, Wieden + Kennedy, Director of Interactive Production\* (VR)

One of your final exam prompts will be: Think about all the speakers you have heard—their technologies, industries, positions, their challenges and lessons for high-tech marketing success. Now, think about the concepts we have learned in class (see summary below).

➔ *What are three of the most important themes that have appeared consistently across speakers as they relate to high-tech marketing? Elaborate sufficiently on each of these themes (provide sufficient detail) to justify its selection as one of the three most important lessons all semester. In addition, I expect you to provide detailed documentation/references of when and where the various speakers emphasized that point (a minimum of three speakers to support each point you make; this can include mixing and matching speakers across the themes—preferably more than three speakers!).*  
(Hint: You might develop a 3 x 3 table for your outline and include it as an exhibit for your exam.)

Collaboration is fine in outlining your answers, as long as the typed work you submit is your own work.

**Book Clubs:** Either a book club or blog club + online webinar/outside feature.

In groups of three, please select

(a) a technology business book to read, dissect, analyze and evaluate based on what we are learning in class. (I have a TON on my shelf and can bring them to class someday if you would like?) or

(b) three technology blogs to follow on a *weekly basis* for the next 10 weeks. Please keep a journal of the articles you are reading and share the content with your discussion group.

Meet three times/1 hour each: discuss, dissect, critique, analyze, reflect.

Assign a discussion guide each week (person) who leads the discussion.

Your discussion guides will be part of your grade and must be turned in.

Timeline:

Groups/topics formed: February 8

Group meeting #1 – 3 weeks (by 2.19)

Group meeting #2 – 3 weeks (by 3.11)

Group meeting #3 – 3 weeks (by 4.22)

Individually: 3-5 pages, double spaced, **due Monday, May 2.**

Brief (no more than one page) descriptive summary of what you learned/content;

Insightful analysis/reflection of marketing & technology based on class learnings as tied to the content.

Your personal reactions to the book club

Cohesiveness in thinking

Professional writing.

**Blogs, etc.**

<http://marketingtechie.org/>

<https://gigaom.com/>

<http://www.engadget.com/>

<http://www.aonetwork.com/> (AlwaysON: The intersection of

technology, media, entertainment) <http://techcrunch.com/>

<http://recode.net/>

Mashable.com

Technorati

Gizmodo.com

ZDNet.com

CNET

Blogs.computerworld.com [http://blogs.forrester.com/technology\\_industry](http://blogs.forrester.com/technology_industry)

Gartner Group: <http://www.gartner.com/technology/research/hype-cycles/>

Deloitte

Fortune, Wired, Forbes, Bloomberg's Business Week, Wall Street Journal, The Economist,

MIT Tech Review <http://www.technologyreview.com/>

Knowledge@Wharton, Financial Times (<http://blogs.ft.com/tech-blog/>)

NY Times, SF Chronicle, San Jose Mercury News, Unofficial Apple blog; Official Google Blog,

Huffington Post/Tech: <http://www.huffingtonpost.com/tech/>

White papers

**Webinars:** CMO Council; MSI; Technology Marketing Center