**Aaron Marcus and Associates, Inc.**
1196 Euclid Avenue, Suite 1F
Berkeley, CA 94708-1640, USA

Email: Aaron.Marcus@AMandA.com
Tel: +1-510-601-0994, Fax: +1-510-527-1994
Web: www.AMandA.com

**Experience Intelligent Design**
User-Interface Development
Information Visualization

# User-Centered, User-Interface Development Course

Aaron Marcus and Associates, Inc. (AM+A), offers a powerfully effective course in user-centered, user-interface development specifically intended to foster and/or improve centers of excellence in software development and product/service design. The course is superior to conference and touring courses because participants can refer to, review, discuss, and benefit from in-house, non-disclosable materials that they may not wish to share externally. By design, the course is customized to your needs.

The following information describes the course and explains its benefits to participants. I also have included a letter of commendation from the manager of training at Inovant, Visa's technology solutions company, praising the course that we presented to Visa and Inovant staff.

Please consider bringing this course on site. If you have any questions, please contact us as soon as convenient so that we can discuss them. We shall follow up in the near future to inquire about your interest in the course.

# Course Description

**Overview**

User-Centered, User-Interface Development (UCUID): Best Practices is an advanced course offered by Aaron Marcus and Associates, Inc. (AM+A), a pioneer and world leader of user-interface design. The course enables participants to improve their skills as thought- and action-leaders, who can in turn train or assist their colleagues in planning, researching, analyzing, designing, evaluating, and documenting superior user interfaces within product/service software solutions.

The first four days of the course consist of lectures, case studies, and exercises that present the best from AM+A's tutorials and publications provided worldwide for over 20 years. The exercises, and the ensuing discussions and critiques, ensure that participants have clearly demonstrated understanding and the ability to apply that understanding to their work.

On the fifth and final day, AM+A will review and facilitate group discussion of past, current, or planned projects that participants have submitted, giving this course a customized, pragmatic focus on user-centered development practices at your company or organization.

Each person attending the course will be given a workbook with materials to be referenced during the course and used as an ongoing information resource afterwards. Accompanying the workbook are templates for developing information architecture diagrams, and for conducting and reporting findings from needs analyses, heuristic evaluations, and user tests.

**UCUID: Best Practices includes the following key features and benefits:**

- We approach the challenges of user-interface design in a comprehensive, integrated process. Our course emphasizes both visual design and usability analysis, disciplines typically covered by other companies in two different courses by people with very different skills and oriented to two different groups. One might describe the course as one oriented to the "whole set of challenges, the whole person, and the whole brain, both left and right hemispheres." We emphasize usability, but also point the way to usefulness and appeal as vital objectives for computer-based products and services.

- Our course accounts for user-interface development of Websites, Web applications, and traditional client-server applications (and can be extended to mobile platforms as well). We find that corporations still have the need for traditional client-server application user interfaces, and that participants may be called upon to move back and forth across platforms. We emphasize strategies that account for the differences and similarities of these deployment platforms.

- Our course encourages participants to relate comprehensive, integrated, user-centered, user-interface development to comprehensive software development approaches such as those promoted by courses and initiatives relying upon UML, RUP, etc. We have identified certain areas of weakness in these corporate efforts to institute high-quality, cost-efficient software development within their organizations. Our course fills the gaps. The methods we describe are complementary to the use-cases, templates, and other documents that software engineering, management, quality assurance/control, documentation, and other groups develop and maintain.

- A significant benefit of our course is that, by gathering together potential leaders of user-centered, user-interface development from across business organizations, these key personnel can learn about shared challenges and resources, improving company-wide practices. An additional outcome is a strengthened leadership group that significantly increases knowledge transfer back to people's desks, out to colleagues, and into action plans. Our "graduates" can help initiate or augment existing centers of excellence. We account for this action planning within the course through specific discussions.

**Who should attend**

Attendees should be key design, usability, software-engineering, and product development professionals who want/need more practical know-how regarding user-interface development. Other attendees who will benefit include usability analysts, content analysts, and visual designers.

**Pricing**

$2,500 per person (ten person minimum)
Typically, the maximum size is 30 people.

Travel expense reimbursement for presenter(s)

# Course Schedule

Following is the approximate course schedule, which may be customized per on-site requirements. Topics covered in each day's lectures are identified. Exercises accompany most of the lectures.

# Day 1

**Lecture 1**
**Why Does User-Interface (UI) Development Matter?**
User-interface development affects user satisfaction in ways that immediately impact the bottom line. This lecture provides an expert overview of the user-centered UI development process, presenting best practices that are known to contribute to success. Special attention is paid to issues that support customer adoption, quick comprehension, and ease of use.

- Usability
- User-centered design
- User-experience design
- Return on investment (ROI)

**Lecture 2**
**UI Visual-Design Techniques That Work Every Time**
This lecture provides essentials for developing user interfaces that are usable and visually appealing.

- Principles of visual design
- Visual design techniques
- Icon design
- Layout

# Day 2

**Lecture 3**
**UI Principles That Ensure Usability**
Usable software products don't happen by accident. This lecture introduces essential usability principles for designing, evaluating and improving products at every stage of the user-interface development process.

- Human factors in UI design
- UI design heuristics
- How to conduct a heuristic evaluation

**Lecture 4**
**The Process of UI Development**
This lecture provides an overview of industry best practices in user-interface development for every phase of the project life cycle. It also shows how these best practices integrate with the larger software development process.

- Phases of UI development
- UI development activities
- Assessing your UI development practices
- Case study of a Web application's UI development

**Lecture 5**
**Meeting Users' Objectives/Goals through UI Needs/Task Analysis**
User interfaces often fail because they were developed only from technical or functional specifications, without user input. This lecture provides instruction on how to put users at the center of the design process so that technical and functional specifications are expressed meaningfully and usably in the UI.

- How to conduct a needs analysis
- Components of a user model
- User model artifact
- Task analysis

**Lecture 6**
**Conceptual Design**
Conceptual design is the first step in synthesizing the product's requirements and the needs-analysis findings. This lecture discusses high-level modeling approaches to UI development.

- Moving from analysis to design
- Partitioning the user-interface into primary areas
- Rapid modeling with sticky-notes

# Day 3

**Lecture 7**
**UI Prototyping and Vision Storyselling**
In today's economy, even a business-critical project must be "sold" to the executives and key customers who must fund and support its development. This lecture covers the essentials of how to develop engaging and compelling demos and prototypes that make a product vision visible, comprehensible, credible, and desirable to key audiences.

- Objectives of a vision demo
- Attributes of a successful vision demo
- Developing your message by brainstorming

**Lecture 8**
**Design Tools for Effective Development**
Computer-aided design tools help generate rapid, iterative prototypes at minimal cost. This lecture addresses how to use computer tools the right way to develop useful prototypes that accelerate, rather than impede, the development process.

- UI-design tools and artifacts
- Best practices for Website and Web application UIs
- Thick- to thin-client UIs

**Lecture 9**
**Website and Web Application Best Practices**
Website and Web-application developers lack the authoritative user-interface guidelines available to developers of applications that run on desktop operating systems such as Windows, Macintosh, etc. This lecture presents the best practices that have emerged in the brief but intense history of Web-based software.

- Website navigation, interaction, and appearance guidelines
- Web application navigation, interaction, and appearance guidelines

**Lecture 10**
**Solving Web App UI Challenges Quickly with Patterns**

Patterns are solutions to commonly recurring design challenges. This lecture will educate participants about design patterns and how they can be used to develop consistent, effective applications.

- Definition of UI design patterns
- Structure of UI design patterns
- Examples of UI design patterns

**Lecture 11**
**Is Your Design Usable? How User Testing can Help**
Designing without first-hand knowledge of users is risky, because faulty assumptions about their needs and behavior can result in poor usability. This lecture introduces user-testing methods that help make UI design more user-centered.

- Who should be tested?
- What should be tested?
- When should you test?
- How to conduct a usability test

# Day 4

**Lecture 12**
**Accessibility for Everyone**
Accessibility is a must for users with disabilities, who are elderly, or who work in specific industries or the government. This lecture covers accessibility basics.

- Why design for accessibility?
- W3C accessibility guidelines
- Section 508 accessibility guidelines
- Accessibility solutions

**Lecture 13**
**Assuring Correct Design Implementation through Guidelines and Specifications**
Even the best design can lose its effectiveness when it is implemented by others. Documentation plays an essential role in ensuring that a user-interface design is transmitted from the team that designed it to the team that will implement it.

- Developing screen types
- Preparing a style guide
- Producing HTML proofs

**Lecture 14**
**What If They Don't Speak English?**
Successful products that begin as local efforts often travel outside country or regional boundaries as they become widely adopted. Products/services that were not designed from the beginning for multinational or multilingual use often cannot be deployed globally with ease. This lecture outlines the issues involved in developing software that may be translated or adapted for other languages and cultures.

- UI globalization guidelines and implications

- Internationalization and localization

# Day 5

**Project Reviews**
**Putting It into Practice: Guided Group Review**
Participants will be asked to bring past, current, or planned projects, with descriptions of the use context, users, functional and data (content) requirements, and the current state of screen designs. Other participants will be asked to discuss and critique the projects, applying the techniques presented during the course.

The concluding session of the day will consist of a discussion of how best to put into practice lessons learned, how to continue communication among the participants, and how o foster collaborative activities.

- Project reviews
- Leadership team action planning

# Letter of Commendation

Visa's manager of corporate training provided this letter of commendation:

From: "Aiken, Larry" laiken@inovant.com
To: 'Aaron Marcus' Aaron@AMandA.com
Subject: UI Design Class
Date: Fri, 11 Jul 2003 09:09:10 -0700

Aaron -

I would also like to take the opportunity to thank you for the excellent job AM+A has done in preparing and delivering an effective, useful, and enjoyable Advanced User Interface Design class for Visa and Inovant staff.

The class participant comments were highly favorable, which leads me to believe that we achieved our goals of level-setting the User Interface Designers in the organization, raising the bar for consistent and usable interfaces, and providing a forum for our staff to network and meet with others who have complementary experiences to round-out design efforts.

I appreciate the time taken in the class to provide the class members with time to discuss and begin forming a center of excellence in user interface design. This group, under your guidance, coalesced in to a unified group that will be a critical component in project management within the Inovant and Visa organizations.

Thanks to you and your staff for using our comments and suggestions to customize the class agenda and contents to ensure that the materials were applicable to our circumstances, organized according to RUP best practices, and included sufficient hands-on experience for the group to expand their understanding of the concepts.

And finally, thank you for the candid comments regarding the class participants. This information will enable us to ensure that staff participants receive the support and assistance necessary in their future efforts.

As we move forward in institutionalizing the User Interface Center of Excellence, I look forward to your comments and feedback.

Thanks - Larry