



Middle and High School Planning

- **Purpose of Presentation**
- **Problem Statement**
- **Remedy**
- **Advantages**
- **Other Aspects of Planning**



Middle Level Education: Holistic Program Planning in the Middle Schools



Middle Schools: Holistic Program Planning

- Bottom Line: It is necessary to **completely** re-engineer curriculum, instruction and professional growth to build capacity in an effort to meet district goals for secondary education.
- Re-Engineering needs to impact all aspects of school operations, including staffing and enrollment, and must focus on:
 - Strengthened Academic Program
 - Innovative Instructional Practice
 - Student Support Programs and Opportunities
 - School-Family-Community Relationships
 - Embedded Professional Growth Opportunities



Middle Schools: Holistic Program Planning

- Two middle schools in the district allows a unique opportunity to innovatively re-engineer programs to provide two premier Magnet choices for Middle Level Education.
- Proposed Magnet Themes:
 - Humanities and Fine Arts
 - Research Science and Technology
- **All** Program aspects will be developed from the ground floor.
- Both schools will be based upon offering Pre-AP opportunities to all students, a thematic Throughline that is represented in all content areas and Advanced Studies coursework opportunities for HS credit.



Middle Schools: Holistic Program Planning

- Strengthen current successful practices:
 - Building Leadership Teams/Shared Planning
 - Embedded Instructional Strategies
 - Regional Support Network Collaboration
 - Full-Service Network – Student/Family Support Services
 - YTD Middle School pre-conference hearings are down by over 50%
 - YTD Suspensions are down by 62%
 - Departmental and Building-Wide Professional Development
 - Teaming
 - District Wide Collaboration Among Buildings
 - Formative Assessments



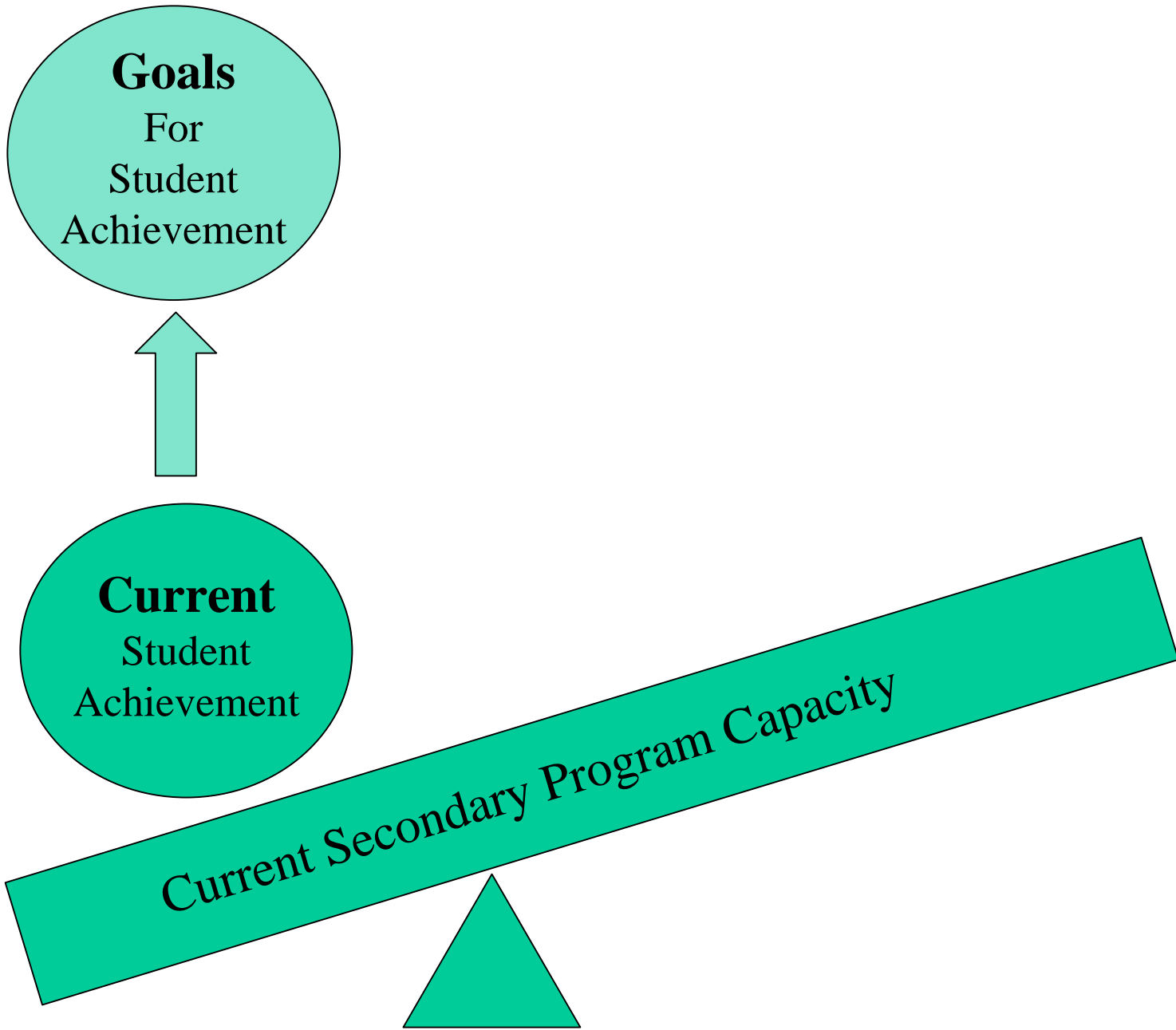
Middle Schools: Holistic Program Planning

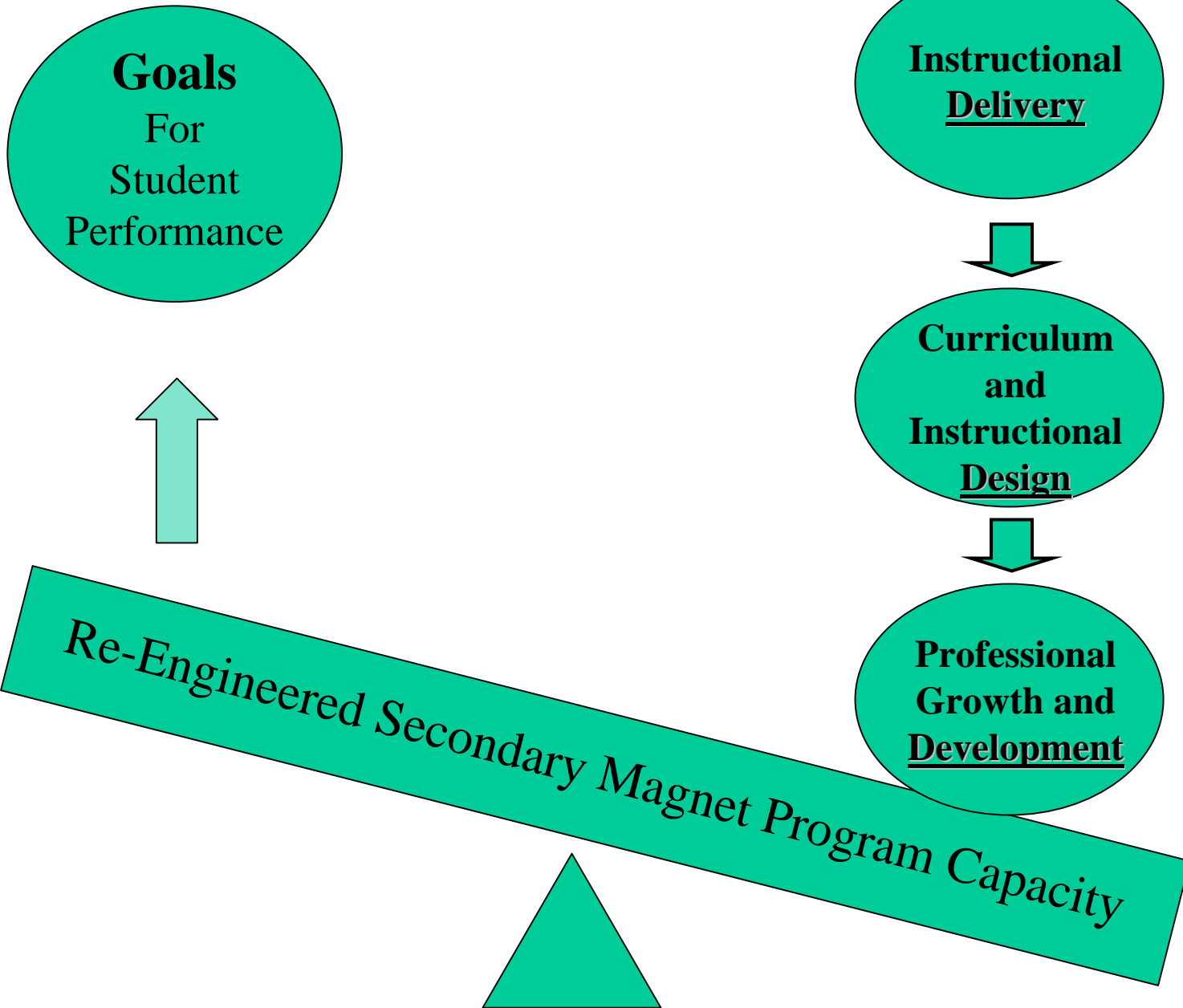
- Build leverage for strengthening other programs and practices:
 - Holistic Programming/Content Isolation
 - Eliminate learning in “Silos”
 - Interdisciplinary approaches
 - Supporting the Non-Tested Content Areas
 - Academic support opportunities
 - Advanced academic opportunities
 - Special Education Programming
 - Academic Rigor/High Expectations in all programs
 - Planning/Teaching for Understanding
 - Cross-Curricular Learning
 - Real-World Applications for Instruction
 - Vertical Program Articulation
 - Action research, study groups, professional planning and reflective practice.



Building Capacity: Program Cornerstones to Leverage Student Achievement

- Cornerstones to Re-Engineering:
 - The Three “D’s”:
 - Development, Design and Delivery
- Professional Growth, Assessment and **Development:**
 - Whole Faculty Study Groups (WFSG)
- Curriculum and Instructional **Design:**
 - Beginning with the end in mind
 - Teaching for Understanding
 - Pre-AP Course Design (College Board)
 - Advanced Studies and Enrichment Opportunities
 - Special Education Services
- Instructional **Delivery:**
 - NUA/Student Centered Instruction







High School: Academies of Learning

Holistic Facility and Program Planning:



High School:

Holistic Facility and Program Planning:

- Purpose:
 - Focus on organizational, programmatic and instructional perspectives to offer *broader, more durable* preparation for higher education and career development.
- Goals:
 - High Academic Achievement for all students:
 - 100% 4-Year Graduation Rate
 - Eliminate the Achievement Gap
 - Successful transition to post-secondary education and training.
 - Preparation for Success in Careers (academic skills, technical skills, employability skills).



High School:

Holistic Facility and Program Planning:

- Goals con't:
 - Add relevance to the curriculum.
 - Provide extensive real-world learning experiences.
 - Enhance Career Development Outcomes.
 - Help develop workplace, academic and technical skills.
 - Build links to the community.



High School:

Holistic Facility and Program Planning:

- Approach:
- Academies at AHS and at PLMA based on Career Clusters and Student Thematic Interest
- Apply all aforementioned programmatic concepts
 - Design, Delivery and Development
- Current Career Exploration Programs and Areas of Study:
 - Criminal Justice/Law
 - Engineering
 - Finance
 - Communication and the Arts
 - Education
 - Health Sciences - Forensics
 - IBO Diploma
 - Various CTE programs



High School: Holistic Facility and Program Planning:

- Academy Necessities:
- All students complete and maintain a Plan of Study
- True Academies of teachers, administrators and students
- Academic Rigor and Relevance in all coursework
- Emphasize practice as much as program:
 - Pragmatic, real world applications
 - Authentic Assessment
 - Problem Based Learning
 - Interdisciplinary applications
 - Co-teaching
- All students have a strong association with the adults in their Academy



High School:

Holistic Facility and Program Planning:

- Current PLMA Facility:
 - Paralleling the Career Cluster of Science, Technology, Engineering and Mathematics, Create an **“Academy of Nanoscale Science and Engineering.”**
 - We will become the national leaders in developing a 9-16 plan of study in this field.
 - Create a true Math, Science and Technology program
 - Parallels Board of Regents “A Plan for Action”
 - Partnerships/Collaboration with CNSE, UAlbany, RPI, HVCC
 - Expand Project Lead the Way and the Technical Sciences
 - Expand offerings in Engineering and Environmental Science
 - Focus on interdisciplinary applications and processes



High School:

Holistic Facility and Program Planning:

- The principles of the “Nano Constellation” will be the thread for all coursework:
 - **Nanoscience:** The observation, identification, description, discovery, experimental investigation, and theoretical interpretation of nanoscale phenomena.
 - **Nanoengineering:** The application of nanoscience principles to practical ends, such as the design, manufacture, and operation of efficient and functional structures, machines, processes, and systems on the atomic scale.
 - **Nanobioscience:** The application of nanoscale scientific concepts and principles to the study of biological and biomedical structures and systems.
 - **Nanoeconomics:** The formulation, study, and analysis of the economic and business principles underlying the development and deployment of nanoscale know how, products, and systems.

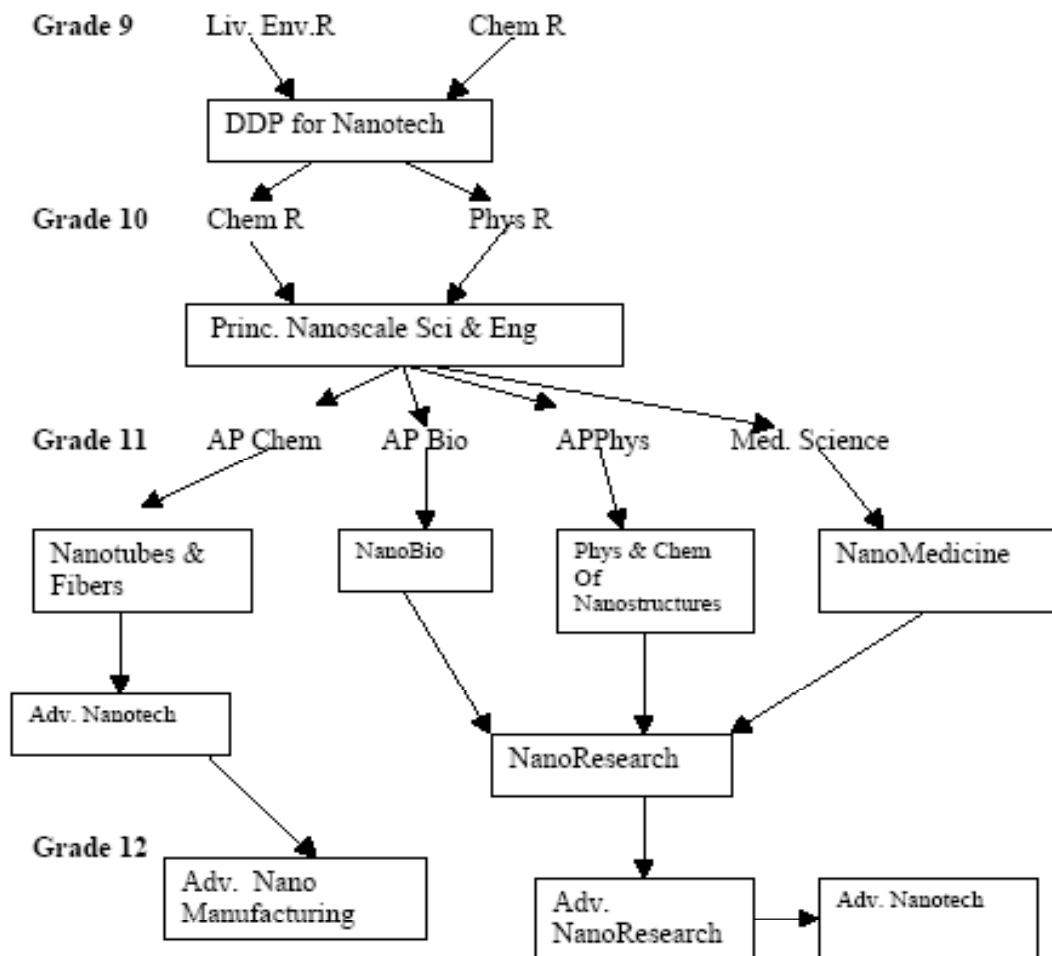


2007-2008 AHS Offerings

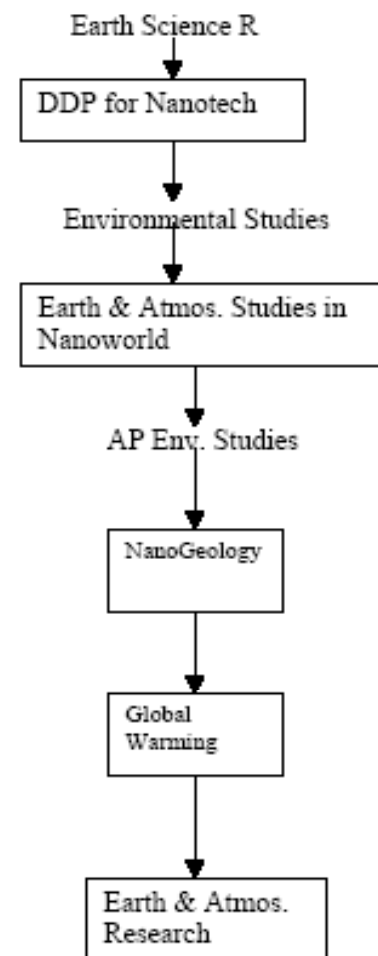
- Through our collaboration with the College of Nanoscale Science and Engineering at UAlbany, we are offering two Nanoscience courses in 2007-2008:
- Introduction to Nanoscale Science and Engineering:
 - Classroom experiences will be enriched through guest lecturers from UAlbany and visits to the UAlbany Nanoscience facility. This course is designed to assist students in meeting the minimum graduation requirement for science.
- Advanced Nanoscale Science and Engineering:
 - This course has a mandatory lab component, and students will experience the fabrication labs at UAlbany.

City School District of Albany
Philip Livingston High School of Nanoscale Science & Engineering
 Sample Academic Pathways

NANOSCIENCE & ENGINEERING



ENVIRONMENTAL



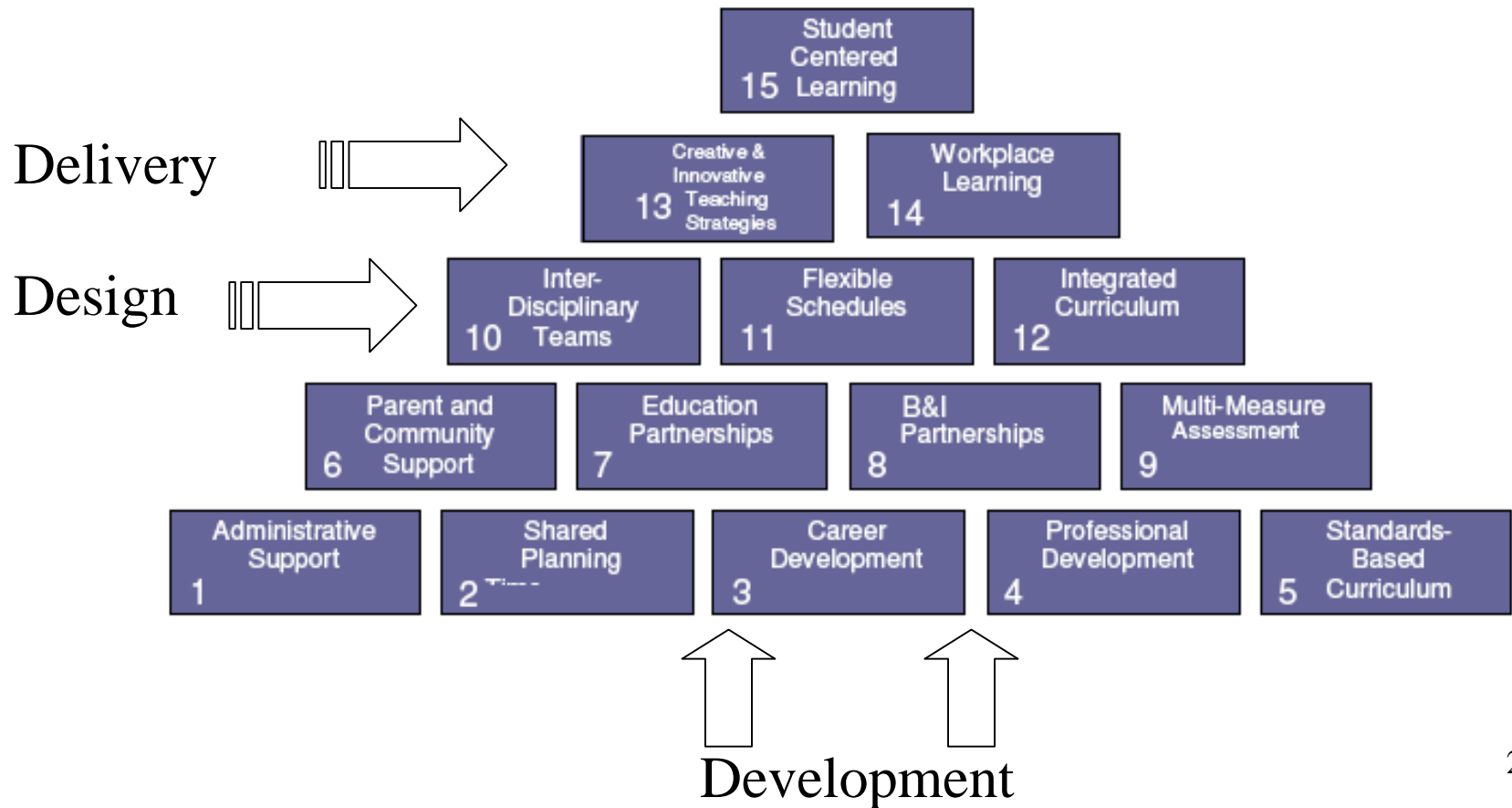
This represents a sample only. Students have several pathway options available.



Project Phasing Schedule:

- February 15, 2007:
 - Introductory Presentation
- March 6, 2007:
 - Update on Magnet Concept and Approach
 - Questions from 2/15 presentation addressed
- March 15, 2007:
 - Additional Questions addressed
 - Commitment required to proceed with Magnet Concept and MLE facility configuration:
 - If No:
 - MLE Enrollment plan revisited.
 - Revised WSHMS Reconstitution Plan developed by 7/31.
 - Reconstitution Plan necessary for PLMA and developed by 7/31.
 - Organizational plan for AHS revisited. New plan necessary by 7/31.

CAREER CLUSTERS: 15 CRITICAL COMPONENTS FOR IMPLEMENTATION





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February 15, 2007